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All Eggs in One Basket

A Reflection on Malawi's Dependence on Agricultural Growth Strategy

Klaus Droppelmann

Jonathan Makuwira

Ian Kumwenda

Development Strategy and Governance Division

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

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AUTHORS

Klaus Droppelmann, International Food Policy Research Institute
Senior Program Coordinator, Developmet Strategy and Governance Division
k.droppelmann@cgiar.org

Jonathan Makuwira, Royal Melbourne Institute of Technology University
Senior Lecturer, International Development
jonathan.makuwira@rmit.edu.au

Ian Kumwenda, Agriculture Natural Resources Management Consortium
Director
iankumwenda@yahoo.com

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ABSTRACT

Recently, there has been a resurgence of interest in the study of structural transformation. However, Africa has received little attention despite the fact that its rural areas seem to be very poor and unproductive relative to urban areas. This case study provides a reflection on challenges faced and development strategies adopted by successive governments in Malawi. Malawi is a country with a complex history of rural-urban transformation. On one hand, Malawi has long been, and still is, a predominantly agrarian economy that has seemingly undergone relatively little rural-urban transformation. Malawi is still predominantly rural, most migration is rural-to-rural, and its economic base is heavily dominated by the production of maize (largely for domestic consumption) and tobacco (largely for exports). In this paper we analyze the macroeconomic policy situation and document patterns and trends in Malawi's rural-urban transformation in a systematic manner. To that end, we focus on a number of dimensions of this transformation, including urban population growth, migration patterns, employment trends, and a spatial analysis of agglomerations and connectivity to major urban centers. We then turn to explain these patterns, largely in terms of colonial, post-independence, and more recent history of agricultural policies. We also examine migration patterns (both rural-urban and rural-rural), and constraints on the development of the nonfarm sector. In conclusion it becomes apparent that Malawi must diversify its economy to sustain poverty reduction and economic growth. However, it is not clear whether Malawi has an obvious comparative advantage in any sizeable nonfarm sector and how exactly the economic diversification process is to be achieved.

Keywords: rural-urban transformation, agricultural sector growth, agglomeration, Malawi

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1. INTRODUCTION

Malawi is a country with a complex history of rural–urban transformation. Malawi has long been, and still is, a predominantly agrarian economy that has seemingly undergone relatively little rural–urban transformation. Malawi is still predominantly rural, most migration is rural-to-rural, and the country's economic base is heavily dominated by the production of maize (largely for domestic consumption) and tobacco (largely for exports). However, transformation within the rural sector has been quite significant, although not always positive. Under the colonial regime and the post-independence Banda regime (1961–94), the dominant policy was the favored development of the tobacco estate sector, with predominantly maize-producing smallholders largely left marginalized. The favoritism took many forms, including price discrimination through the Agricultural Development and Marketing Corporation (ADMARC) and highly biased land policies. Since the advent of multiparty political pluralism in 1994, the overarching agenda for the past two ruling regimes, of Bakili Muluzi (1994–2004) and Bingu WaMutharika (2004–present), has instead been poverty reduction, with a much greater focus on smallholders. This has included Malawi's well-known fertilizer subsidies, which—along with favorable weather—have greatly increased food security from 2005/06 onward, to the point where Malawi became a net food exporter.

Malawi registered strong economic performance in the post-independence years by exploiting its comparative advantage in agriculture and by avoiding the industrial-led import-substitution growth strategy that many of its neighbors adopted. The combined effects of fluctuations in the world prices of tobacco, conflict in Mozambique, and the second oil shock put severe stress on the Malawian economy in the late 1970s and 1980s. Macroeconomic indicators fluctuated significantly, and inflation rates were very high in the late 1980s. In response to the deteriorating economic conditions, Malawi adopted structural adjustment measures and stabilization recommendations by the World Bank and the International Monetary Fund (IMF). The policy reforms that took place during this period of adjustments emphasized restoring growth in the agriculture sector by restructuring incentives and increasing market efficiency. The efforts at structural adjustment and policy reform resulted in a reasonable turnaround from the economic distress that was observed in the 1980s, with gains in gross domestic product (GDP) growth as well as agricultural growth (Sahn and Arulpragasam 1994).

Despite recent positive gains, the future of the Malawian economy and its economic transformation in particular, faces critical challenges. Malawi follows an agriculture-based development agenda, largely relying on the production of two crops, maize and tobacco, with few obvious signs of economic diversification, or even of strategies for economic diversification. The tobacco sector probably faces stagnant international demand or worse. Transport costs inhibit both agricultural and nonagricultural exports, and the nonfarm sector is further inhibited by poor infrastructure (for example, electricity) and, in some regards, a burdensome regulatory environment. Moreover, it is not clear whether Malawi has an obvious comparative advantage in any sizable nonfarm sector. While it is not clear how the economy must diversify, it seems uncontroversial to conclude that without economic diversification it is difficult to envisage how poverty reduction and economic transformation can be sustained.

In this paper we first analyze the macroeconomic policy situation and real exchange rate data from Malawi (Section 2). The next section documents patterns and trends in Malawi's rural–urban transformation in a systematic manner. To that end, we focus on a number of dimensions of this transformation, including urban population growth, migration patterns, employment trends, and a spatial analysis of agglomerations and connectivity to major urban centers (Section 3). We then turn to explain these patterns, largely in terms of the colonial, post-independence (Banda), and more recent history of agricultural policies (Section 4). However, we also focus on migration patterns (both rural–urban and rural–rural) and constraints on the development of the nonfarm sector. The concluding section (Section 5) provides a summary of our findings and provides a critical reflection of recent development strategies and the ongoing problems facing Malawi's economy, with an emphasis on the need to promote greater economic diversification.

2. MACROECONOMIC POLICY AND REAL EXCHANGE RATES

Macroeconomic and trade policies constitute one crucial aspect of development strategy, influencing the relative prices of tradable and nontradable goods and services. These policies also directly affect the prices of tradable agricultural commodities, such as maize and tobacco, and thereby heavily influence agricultural incomes and rural poverty. As shown below, for most of the past two decades, Malawi's macroeconomic policies, as reflected in the real exchange rate, have not been favorable toward the production of tradable goods and services and thereby have tended to hinder long-term structural transformation and growth.

The real exchange rate (RER) measures the relative price of tradables to nontradables and can be defined as RER = ER * PT / PNT, where ER is the nominal exchange rate measured in units of local currency per international currency, PT is the world price of tradables in a common international currency (typically an index such as the weighted average of the producer price indexes of trading partners), and PNT is a measure of the domestic prices of nontradables, such as the domestic consumer price index. Over the 2000 - 2010 period, the nominal exchange rate (kwacha/US$) depreciated by an average of 9.6 percent per year, while world prices in dollars (measured against the US Producer Price Index) grew by 4.0 percent per year. Thus, world prices measured in kwacha rose by 14.4 percent per year, as compared to a domestic price increase of 11.7 percent, and the real exchange appreciated by an average of 2.1 percent per year (Table 2.1).[1] Malawi's real exchange rate since 1995 has depreciated steadily, with the real exchange rate index varying between 115 and 133 (1995 = 100) from 2000–10, as nominal exchange rate depreciations have consistently kept up closely with domestic inflation (Figure 2.1).

Cross-country regressions by Rodrik (2008) (Figure 2.2) suggest that Malawi's real exchange rate between 1995 and 2005 (measured by directly comparing the prices of goods and services across countries) was overvalued by about 5–12 percent relative to an estimated equilibrium real exchange rate, and then became undervalued during the 2005–10 period by about 6 percent. In other words, according to this analysis, domestic prices of tradables in Malawi (and incentives for their production) were significantly lower than their equilibrium values until the mid-2000s.

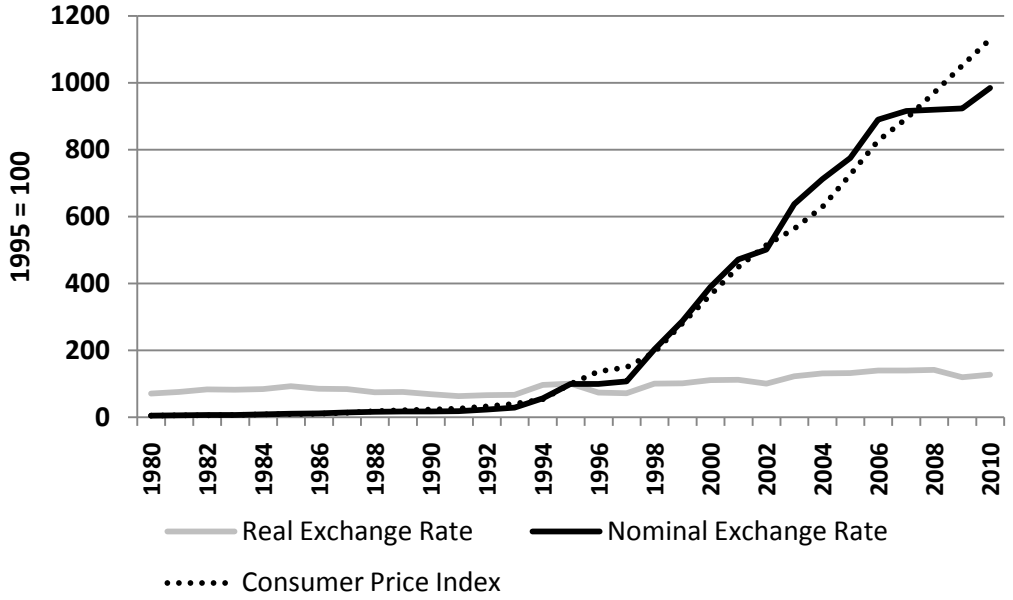
Table 2.1—Malawi nominal and real exchange rates, 1980–2010

	Nominal Exchange Rate (MWK/$)	Nominal Exchange Rate (1995=100)	World Price Index (1995=100)	World Price Index (MWK) (1995=100)	CPI (1995=100)	Real Exchange Rate (1995=100)
1980–84	1.1	7.0	62.6	5.6	6.8	79.2
1985–89	2.2	14.5	66.7	12.3	15.0	82.4
1990–94	4.5	29.1	74.9	27.7	35.7	72.0
1995–99	24.4	159.9	80.0	161.0	173.0	89.3
2000–04	83.0	542.7	86.8	599.3	504.3	115.3
2005–10	137.8	901.4	110.3	1259.5	932.8	133.3
2010	150.5	984.6	117.4	1458.1	1129.9	126.8
Trend 1995–2010	18.1%	18.1%	3.0%	21.7%	17.4%	3.6%
Trend 2000–2010	9.6%	9.6%	4.0%	14.0%	11.7%	2.1%

Source: IMF International Financial Statistics database and authors' calculations.

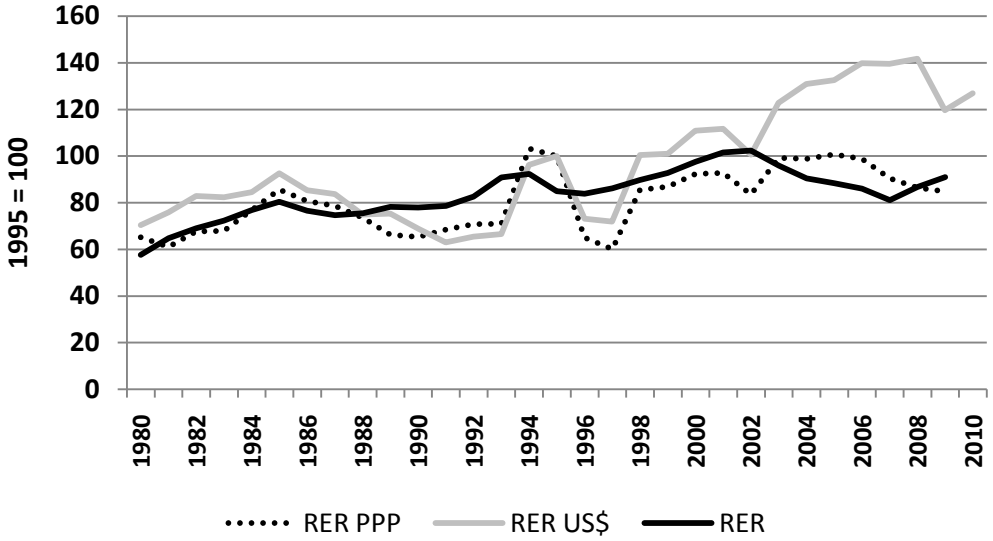
[1] Malawi's official nominal exchange rate had been de facto pegged against the US dollar from 2006 to2009 (IMF Country Report No.1 0/87, March 2010, www.imf.org/external/pubs/ft/scr/2010/cr1087.pdf).

Figure 2.1—Malawi nominal and real exchange rates, 1980–2010



Source: IMF International Financial Statistics database and authors' calculations.

Figure 2.2—Malawi purchasing power parity (PPP) real exchange rates (RER) and undervaluation, 1980–2010



Source: Rodrik (2008).

3. PATTERNS AND TRENDS IN RURAL–URBAN TRANSFORMATION IN MALAWI

To examine rural–urban transformation in Malawi it is important to present some data on urbanization trends, agglomeration and connectivity trends, and migration patterns, as well as differences in rural and urban welfare.

Urbanization Trends

Throughout Malawi's colonial period, which spanned from 1891 to 1964, land and labor policies were instrumental in shaping rural–urban settlement patterns. Malawi experienced minimal urban growth due largely to the restrictive policies under British rule, which classified urban areas as primarily "white only" areas (Kamete 2003). In addition, as observed by Luka (2010), the British Empire sought to take advantage of Malawi's agricultural potential by attracting European settlers to cultivate tea, coffee, tobacco, and cotton. Native Malawians not only lost land as a result of European settlement but were also forced to stay in rural areas as laborers on the established estates. As a result of these restrictive policies on the migration of indigenous populations to urban areas, Malawi's urban population, well over 70 years after the emergence of urban settlements were only 260,000 in 1966, when the first post-independence national census was conducted. This represented only 6.4 percent of the total national population of 4,039,583 (Malawi, Office of the President and Cabinet 1987).

The 2008 census indicates that 15.3 percent of the country's 13.08 million people are classified as urban. In Malawi, urban areas refer to the country's four major cities (Lilongwe, Blantyre, Mzuzu, and Zomba) and to district administrative towns or *Bomas* (NSO 2008a). Comparing this urbanization level to the corresponding average for the less-developed countries of the world, which was 40 percent in 2000, shows that Malawi is one of the least urbanized countries in the world (Cohen 2006; Makuwira 2010). Although the current level of urbanization is low, Malawi has experienced periods of rapid urbanization, as shown in Table 3.1.[2] Following independence, Malawi's urban population grew almost three times faster than its rural population. However, the urban–rural gap in growth rates has narrowed in recent decades, with the exception of the 1990s, when the urban population again grew at about three times the rate of the rural population.

Table 3.1—Post-independence urban population growth in Malawi, 1966–2008

Year	Total National Population	Total Urban Population	Urban Share of Total National Population (%)	Share of Urban Population Living in the 4 Large Cities (%)	Intercensal Annual Growth Rate of Urban Population (%)*	Intercensal Annual Growth Rate of Rural Population (%)*
1966	4,039,583	260,000	6.4	60.4	n/a	n/a
1977	5,547,460	559,000	10.1	64.1	7.21	2.55
1987	7,988,507	857,391	10.7	75.1	4.37	3.64
1998	9,933,868	1,435,436	14.4	76.3	4.80	1.61
2008	13,077,160	2,003,309	15.3	77.2	3.39	2.68

Sources: Compiled from Malawi, Office of the President and Cabinet (1987); NSO (1998, 2008a); and authors' calculations (*).

[2] Other sources report higher figures, but those seem to be originating from the NSO 2008b report, and the figure is wrongly calculated.

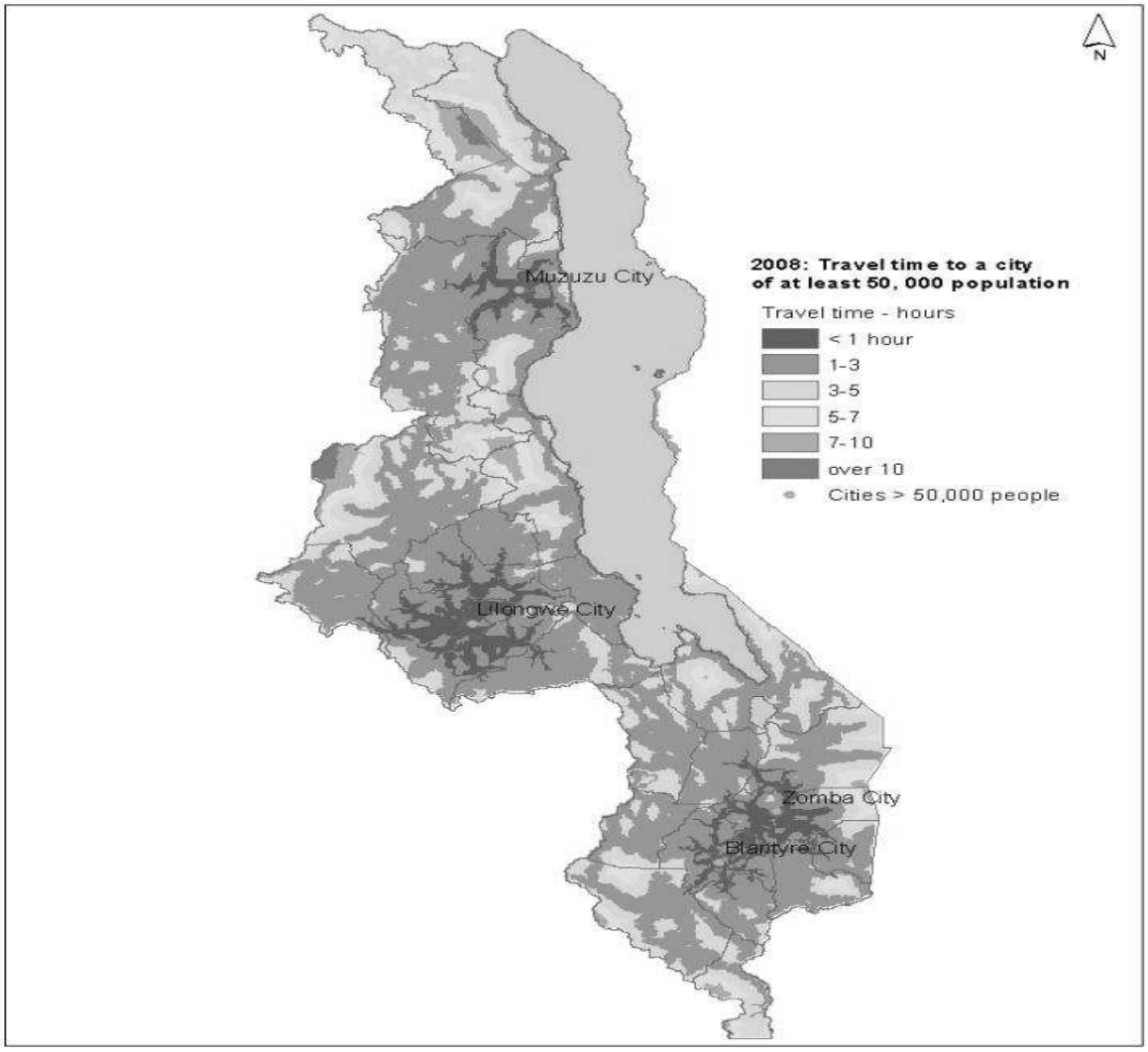
Agglomeration and Connectivity Patterns

Rather than relying on official definitions, a less arbitrary way to approach the subject of urbanization is the calculation of agglomeration indexes. The agglomeration index uses geographic information systems (GIS) to spatially allocate urban versus nonurban areas. Locations are categorized as urban if the population density is greater than 150 people per square kilometer (km^2) and a city of at least 50,000 people is reachable within one hour's travel time. Census calculations usually determine urban administrative boundaries and local criteria. The agglomeration index (AI) for Malawi is 22.7 percent, which is considerably higher than the most recent National Statistical Office (NSO) figure of 15.3 percent. In the south and center of Malawi, designated rural areas have high enough population densities and good enough linkages to official urban centers to be regarded as urban in the AI. For instance, Lilongwe rural district has an urbanization rate of 48.2 percent according to the AI, and the southern rural districts of Blantyre, Chiradzulu, and Zomba record AIs of 41.5, 54.5, and 69.1 percent, respectively. The north of Malawi is least urbanized (AI of 7.6 percent), with urban populations concentrated in Mzuzu and Nkhatabay. The center and south have similar agglomeration indexes, that is, 25.2 and 24.8 percent, respectively.

In 1998, Malawi had a total road network infrastructure of 10,698 kilometers (km), or a density of 11.3 km per $100km^2$. Of this road network, 50 percent comprised dirt or tertiary roads, 28 percent gravel roads, and 22 percent bitumen standard roads. By 2008, the overall road network infrastructure had increased by only 5 percent in length, to 11,208 km. The low increase in the overall total road length is mainly due to upgrading of the existing dirt and gravel roads to bitumen standard. The length of bitumen standard roads has increased by 50 percent, between 1998 and 2008, from 2,946 km to 4,425 km. The upgrading of secondary and tertiary roads into bitumen standard has led to improved travel times for the population.

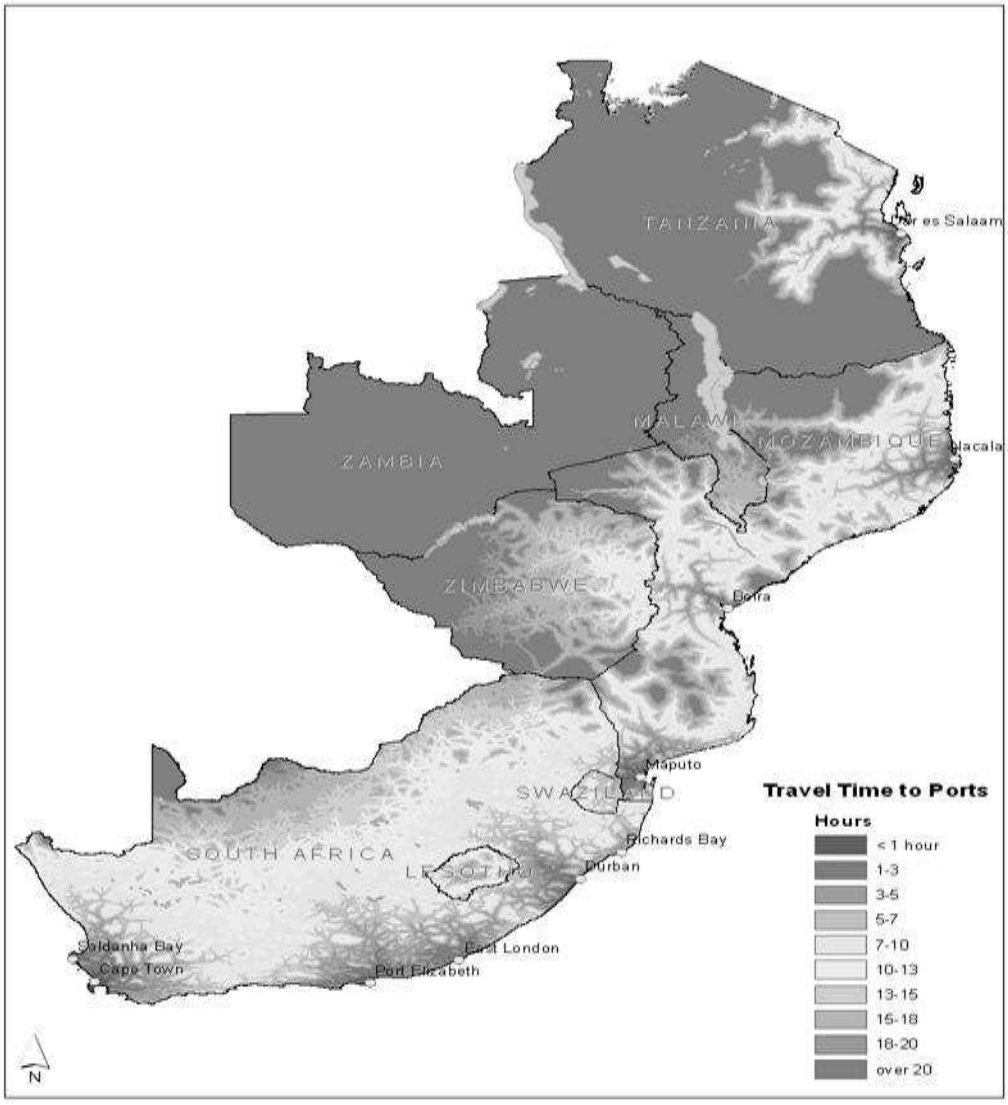
There are regional differences in rural–urban connectivity in the country that have increased rather than decreased over time. In 1998, road densities in the north, center, and south of Malawi were 8.3, 11.1, and 8.9 km per 100 km^2, respectively. The corresponding figures for 2008 were 10.6, 11.1, and 19.8. Thus, the road network increased in both the north and south, but not in the center. In the north most of the new roads were gravel roads. The Central Region saw some upgrading of roads to bitumen standard, but most of the road upgrading took place in the Southern Region of the country. The result is that in the south travel time to cities has been reduced substantially and is currently almost as good as in the center, while access to a city in the north has remained poor (Figure 3.1). The vast majority of all Malawians (more than 98 percent) can reach a major city in less than 5 hours. In fact, it takes four out of five Malawians (82.5 percent) less than 3 hours to reach a major city. Compared to other African countries, Malawians are well connected to their urban centers. In the sparsely populated north, however, about every tenth rural inhabitant must travel for 5 to 10 hours before getting into town. The percentage of the population in the Southern, Central, and Northern Regions that can reach their respective regional city within 1 hour is 13.2 percent, 15.3 percent, and 7.8 percent, respectively (see Appendix Table A.1). The picture changes drastically when looking at travel time to ports (Figure 3.2). Although travel times to Malawi's major importing ports, Beira and Nacala, were reduced from 1997 to 2007 by almost 3 and 9 hours, respectively, travel times to ports are still higher than those in other countries in the region, with the exception of Zambia. Travel time from any point in Malawi to any port in southern Africa is at least 12 hours.

Figure 3.1—Travel time to the four major cities in Malawi



Sources: Lall et al., 2009, NSO 2010 and authors' compilation.

Figure 3.2—Travel time to ports in southeast Africa

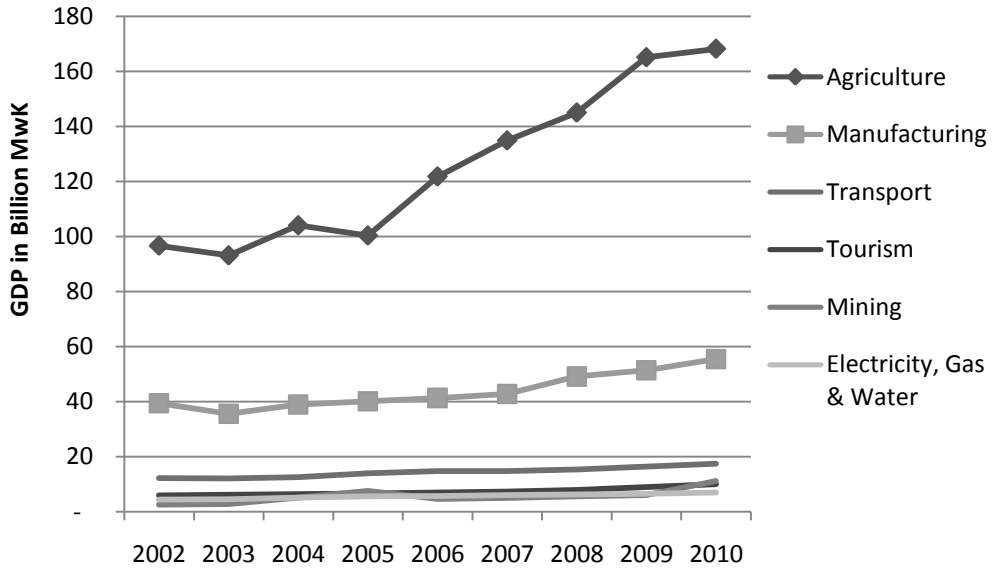


Sources: Lall et al., 2009, NSO 2010 and authors' compilation.

Trends in Sectoral Output and Employment/Occupation

The agricultural sector remains the main employer for the majority of Malawians and accounts for 85 percent of the labor force and 39 percent of GDP, with the smallholder sector contributing 70 percent of agricultural GDP (Chirwa et al. 2008). Author calculations using National Account and NSO data present a similar picture (Appendix Table A.2). An additional consideration is that manufacturing is only 11 percent of GDP, but, of this, a full 26 percent is agroprocessing (an estimate that excludes textiles, which uses some domestic cotton production) (Chirwa, Kydd, and Dorward 2006). In the period from 2004 to 2009 little changed in the sectoral share in GDP (Appendix Table A.2). However, in absolute numbers the agricultural sector did exhibit a tremendous increase in recent years (Figure 3.3). This growth is commonly attributed to the impact of Malawi's Farm Input Subsidy Programme (FISP) on crop production, especially for maize. It also emphasizes the dominating role of agriculture as compared to other productive sectors in Malawi's economy.

Figure 3.3—Gross domestic product by activity in 2006 constant prices



Source: NSO, National Accounts Department and author's compilation.

Trends in Migration

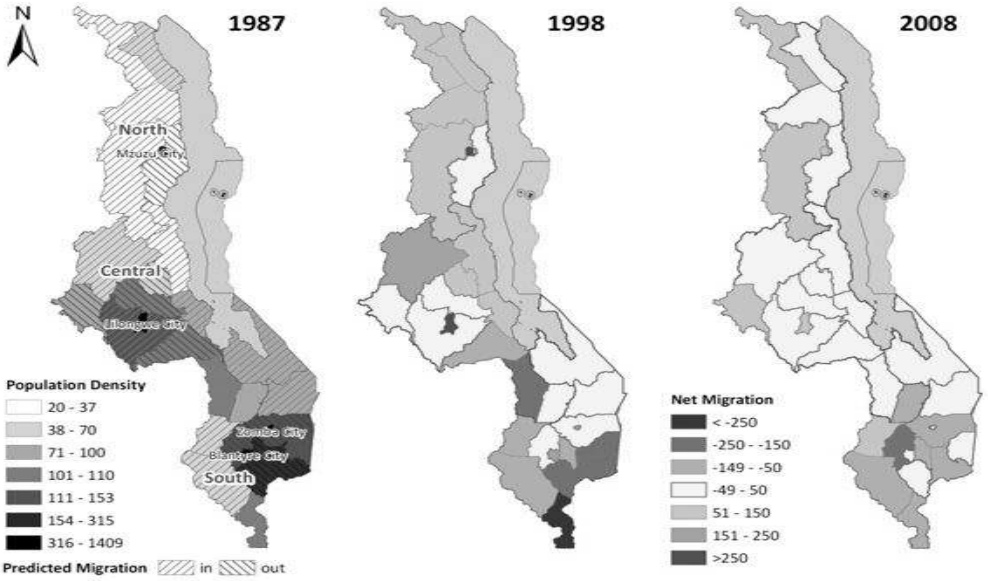
In the early years after independence, the massive inflow of people from rural areas is argued to be a main cause of the rapid growth of the urban population. However, as we show below, rural–urban migration appears to have played only a minor role in Malawi's urbanization over the past couple of decades.

Figure 3.4 shows the spatial distribution of net migration of people in the past two intercensal periods (that is, between 1987 and 1998, and between 1998 and 2008) for each district in Malawi and the four cities, based on census data from the NSO. Net migration was estimated indirectly as the residual between the actual population growth of a district and the natural population growth due to births and deaths.[3] Generally, there has been a decline in net migration throughout Malawi between the past two censuses. In the first intercensal period (1987 to 1998), all four of Malawi's cities experienced net in-migration, with Lilongwe and Mzuzu having higher levels than the two southern cities of Blantyre and Zomba. The urban centers of Blantyre and Zomba recorded net out-migration during the second intercensal period (1998 to 2008), while Lilongwe and Mzuzu both recorded net in-migration.

During the two intercensal periods, the Southern Region, which until the 1970s had been the country's economic *pole* and the region with the consistently largest net inflow of people, became and has remained an area of net out-migration to the two regions further north. The north, formerly labeled the *Dead North*, has been the main destination area for migrants in the two recent intercensal periods. The Central Region had several districts with net inflows of migrants in the 1987–98 period, but only Lilongwe and Mchinji districts gained migrants in the 1998–2008 intercensal period.

[3] Regional differences between districts in birth and death rates exist, 39.8 ±3.1 and 10.5 ±2.8 per 1,000 people, respectively. These differences would theoretically account for at maximum 60 people per 1,000 per decade and therefore not significantly affect the presented net-migration trends.

Figure 3.4—Spatial distribution of net migration of people in the past two intercensal periods (1987–1998 and 1998–2008)



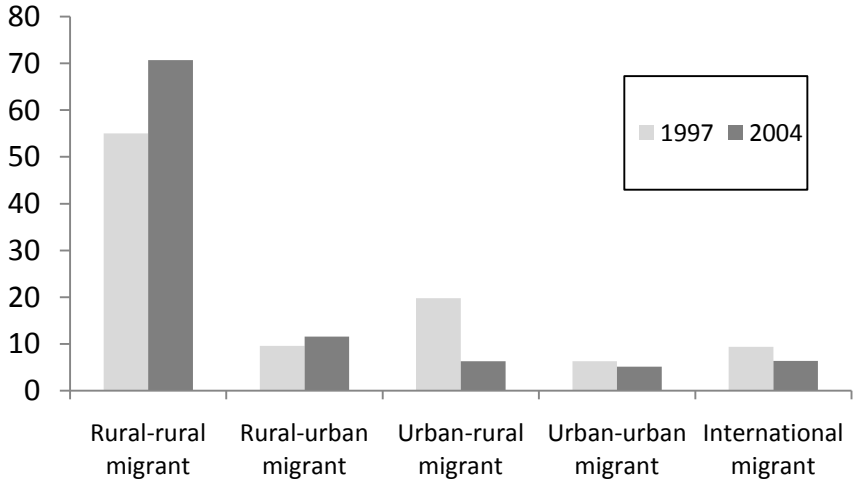
Source: Author calculations based on NSO (2009).

Note: Population density in 1987 (people per square kilometer), and intercensal net migration rates (number of people per 1,000 population) for districts and cities in Malawi for 1998 and 2008. Red colors indicate net out-migration and green colors net in-migration; yellow indicates no effective change

Figure 3.5 shows the percentage of total migration by type of migration for the years 1997 and 2004. Before discussing the observed patterns in the figure, we describe how the statistics were compiled. The five censuses that Malawi has administered do not carry the requisite data for studying permanent migration, although they do provide information to study lifetime migration across though not within districts. To assess rural–urban migration patterns in Malawi, we make use of nationally representative data from Malawi's Integrated Household Survey (IHS), a World Bank Living Standards Measurement Study (LSMS), conducted in 1997/98 (IHS1) and 2004/05 (IHS2). Although the IHS is not a longitudinal survey, several retrospective questions allow for the study of rural–urban migration. Some of these questions include, but are not limited to, whether or not households have always lived in the current village or urban location, the length of time since households came to stay at the current location of residence, and the type (rural vs. urban) of location from which households moved. The data from IHS1 and IHS2 show that the proportion of households reporting that they had migrated to the current place of residence increased from 44 percent in 1997 to 58 percent in 2004 (MNEC 2000, 2005).

Despite the high net in-migration rates in Malawi's urban areas in the last few decades, particularly in Northern Region cities, the dominant form of migration in Malawi in recent years has been between rural areas, as shown in Figure 3.5. Rural–urban migration was the second most common type of migration reported in 2004, while it was the third most common type in 1997. This indicates a slight increase in the contribution to urban population growth by rural migrants. The figure shows that international migration in recent years has been low and on the decline in Malawi. During the colonial period (1891–1964), it was common for Malawians to migrate abroad to countries such as South Africa or Zimbabwe, where employment opportunities were better than those available at home. However, the early 1970s witnessed a change in migration patterns, with large numbers of Malawians returning home from abroad and a decline in international migration. A range of factors, including political and economic, influenced these migration patterns, but key was the rapid economic growth of output and employment that Malawi experienced in the 1970s (Christiansen 1984).

Figure 3.5—Percentage of total migration, by household heads in Malawi, 1997 and 2004



Source: Author calculations based on data from the IHS1 (1997/98) (MNEC 2000) and IHS2 (2004/05) (MNEC 2005).

Three main explanations have been forwarded for the region- and district-level migration patterns in Malawi in recent years: the spatial distribution of land availability, Mozambican refugee movements, and the geography of tobacco estate development (Potts 2006). Perhaps the most important of these explanations relates to the spatial distribution of population density and land availability in Malawi. The National Physical Development Plan (NPDP) of 1987 laid out a plan to encourage voluntary migration from a group of districts that were projected to reach their carrying capacity in the year 2000, to districts that were considered to have adequate land resources to absorb in-migration (see Annex Table A.3). Migration patterns in the Northern Region between 1987 and 1998 were such that those districts where land resources were more plentiful had net inflows of people, whereas Nkhata Bay—where land was relatively scarce—experienced net outflows of migrants. Similarly, in the Central Region, districts with net in-migration or out-migration were those where land was relatively plentiful or scarce, respectively. The exception was Ntcheu District, which had a net outflow of migrants, which was probably related to Mozambican refugee movements.[4] In the Southern Region, only Mwanza District reported significant in-migration between 1987 and 2008. Given its close proximity to Mozambique, refugee movements are again the most obvious explanation for this effect. Nsanje District was, like Mwanza, identified as offering opportunities for in-migration, but instead more than 250 people left the district for every 1,000 people who lived there.

The role of tobacco estate development in Malawi's internal migration patterns is also frequently mentioned in the literature (Potts 2006; Englund 2002; van Donge 2002). The largest tobacco estates in the country are located in Ntchisi, Mchinji, Kasungu, and Dowa Districts in the Central Region and throughout the Northern Region. Kasungu, Mchinji, and Ntchisi were among the few districts in the Central Region that experienced net in-migration between 1987 and 2008. In the 1990s, labor demands on the newly developed tobacco estates in the north were met by collecting large numbers of laborers from the densely populated south and trucking them to the estates, where they were treated like bonded laborers (van Donge 2002)

[4] In the 1980s, there was a massive influx into various Malawi border areas of Mozambican refugees fleeing war. In 1992, after a ceasefire was established, most of the refugees began to return to Mozambique.

To understand the rural–urban transformation, the following fundamental questions are raised. First, what factors explain the high rates of rural–rural migration in Malawi? Second, why is there a rural turnaround between 1997 and 2004? That is, why did the percentage of rural–urban migration increase, whereas the percentage of urban–rural migration decreased? Rural–rural migration in Malawi can be viewed as an important aspect of rural livelihood change and a key way to adapt to environmental constraints, particularly declining land availability (Potts 2006), and climatic variability (Lewin, Fisher, and Weber 2011). As described earlier, in the last two intercensal periods, districts with limited land available for agriculture generally had net out-migration, whereas districts with relatively abundant agricultural land tended to have net in-migration. In addition, land quality appears to be a factor influencing migration decisions in Malawi. A study of the determinants of rural–rural migration between 1999 and 2004 in Malawi found that migrants tended to move to places where land was flat or slightly sloping rather than steeply sloping. The same study also found that rural–rural migrants were less likely to move into communities that had suffered droughts or floods in the last 5 years or those that, over the past 30 years, had had higher rainfall variability during the rainy season (Lewin, Fisher, and Weber 2011). Rural–rural migration in recent decades has also been much influenced by agricultural estates, particularly tobacco estates. As discussed earlier in this section, the last two decades have seen a large number of rural workers and their families leaving the Southern Region and settling in the Central Region districts of Kasungu and Mchinji as well as a number of Northern Region districts, due to the presence in these areas of large tobacco estates with high labor demands (Potts 2006)

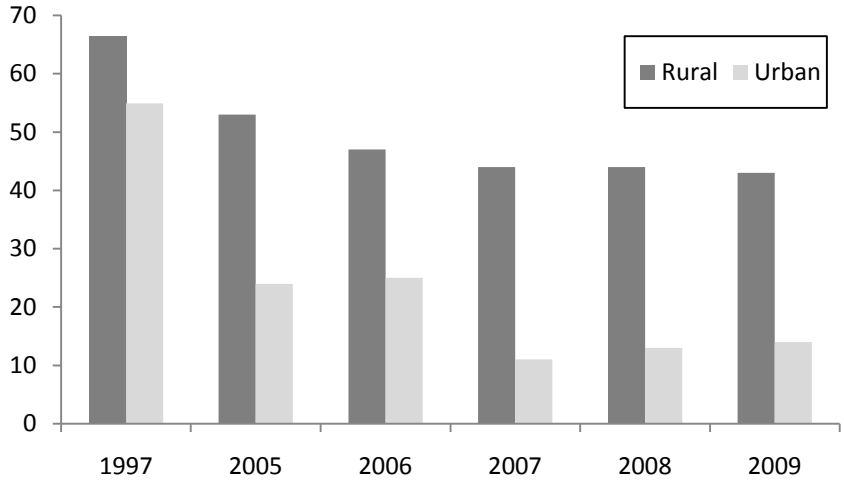
Turning to the second question posed above, the direction of migration flows between rural and urban areas is an important indicator of spatial patterns of economic inequality and opportunity. It is common in Sub-Saharan countries, as elsewhere, for rural people to move to urban areas in search of better-paying jobs and urban amenities such as better schools, healthcare, and entertainment centers. The urban economy in Malawi is, however, not broad enough to absorb most rural migrants, particularly those with low education and few marketable skills. Thus, a large number of rural–urban migrants remain jobless or are paid low wages, and many eventually return to rural areas and farming. This circular migration between rural and urban areas is common in Sub-Saharan Africa (Potts 2010). Englund (2002) similarly observed circular migration in his interviews with about 600 adults who had migrated to Lilongwe, although of a somewhat different character than that described above. A key finding of his research is that rural–urban migration rarely resulted in permanent settlement. Rather, the desire to improve the conditions of life in their villages led rural people to migrate to town in pursuit of cash. The majority of migrants in Englund's sample expressed a strong interest in returning to their village in the near or long term. The majority still had a house and land in their village of origin, and about half were cultivating their land in the current agricultural season.

Trends in Rural and Urban Welfare

Figure 3.6 shows the prevalence of rural and urban poverty in Malawi in recent years.[5] These data reveal several pertinent facts. First, poor people are not evenly distributed across Malawi's landscape. Poverty rates have long been higher in rural than urban areas. That living standards are lower in rural areas is further evidenced by various social indicators of well-being, such as access to clean water, child morbidity and mortality, and school attendance (see Table 3.2). A second relevant fact is that between 1998 and 2007 the percentage of the population living below the national poverty line declined in both urban and rural areas, although, as shown, urban poverty actually increased slightly in the last several years, from 11 percent in 2007 to 14 percent in 2009.

[5] The data for the figure come from the IHS for 1997 and the Welfare Monitoring Survey (WMS) for 2005–2009. Both surveys are nationally representative and administered by Malawi's NSO. Poverty is defined in essentially the same way, with reference to a poverty line based on the cost of purchasing basic needs. The estimates for Malawi as a whole for 2004 (IHS) and 2005 (WMS) agree very well.

Figure 3.6—Poverty prevalence in rural and urban Malawi, 1997 and 2005–2009



Source: Integrated Household Survey (1997) and Welfare Monitoring Survey (2005–2009).

Table 3.2—Selected indicators of economic well-being, rural and urban Malawi, 2004

Indicator	Rural	Urban
Household heads with secondary school education or higher (%)	4.67	25.4
School attendance among children aged 6–10 years (%)	75.9	89
Household has electricity in home (%)	2.2	30.2
Source of drinking water is piped water (%)	9.1	74.4
Household owns a telephone (%)	1.8	21.8
Under-5 mortality rate (per 1,000 live births)	163.9	116.4

Sources: NSO (2008b, 2008c).

Why has rural poverty long been high in Malawi? A key explanation is that during colonial times and for decades after independence, policies resulted in restricted economic opportunities for smallholder farmers in rural areas. These policies did not benefit the majority of the smallholder population and resulted in persistent poverty in rural areas. Poverty in rural Malawi is also explained by a dominant livelihood strategy among smallholder farmers that was until recently unable to guarantee food security or movement out of poverty (Chirwa 2005; Takane 2007). Maize is grown by over 90 percent of smallholder farm households, and most smallholders seek maize self-sufficiency, partly because of concerns about food market unreliability during periods of calorie shortfall (Alwang and Siegel 1999). Relative prices and opportunities suggest, however, that other strategies would be more profitable (Ellis, Kutengule, and Nyasulu 2003). For example, a study of the determinants of poverty in Malawi found that policies promoting risk-diversifying crop cultivation, rather than concentrating on maize or tobacco, would likely bring about reductions in rural poverty (Mukherjee and Benson 2003). The same study found that having at least one household member engaged in formal wage employment was associated with a 15 percent increase in a rural household's per capita consumption.

4. EXPLAINING THE RURAL–URBAN TRANSFORMATION

An intricate relationship exists between urban and rural areas in most African countries (Kalipeni 1992). The urban centers in Sub-Saharan Africa are the main market centers and offer a disproportionate share of wage employment and manufacturing and better medical facilities, schools, shops, and leisure amenities. However, the rural areas provide food for urban centers (Danaher 1984; Kalipeni 1997), especially in landlocked countries and regions. In addition, foreign exchange and taxes earned from the rural economy are invariably invested by governments into the expansion of the urban centers. In Malawi and other agro-based economies, the rural sector is dominated by farming activities. Consequently, the agricultural sector plays a vital role in determining the nature and speed of urbanization through its impact on food prices, foreign exchange earnings, supply of raw materials, demand for urban goods, and rural–urban migration patterns.

In this section, we first discuss the potential role of agriculture in the rural–urban transformation. The various development strategies under different regimes are briefly presented, including land, commodity price, and wage policies. We then turn to discussion of the potential role of the nonagricultural sector, touching on both constraints and opportunities.

The Role of Agriculture

Malawi's agricultural sector is traditionally characterized as bimodal,[6] consisting of the smallholder and estate subsectors. The smallholder subsector has over 2.67 million holdings, with 2.2 million hectares under cultivation (NSO 2009), and contributes over 70 percent of the agricultural GDP (Malawi, MoDPC 2009). These farmers cultivate mainly food crops and raise livestock on fragmented landholdings under customary land tenure. In contrast, the estate sector focuses on high-value export crops such as tobacco, tea, and sugar, and cultivates freehold or leasehold land (Malawi, MoAFS 2010). In recent years, the estate sector's role in seed multiplication for maize, as well as legume crops, has grown. Two crops dominate the Malawian agricultural sector—maize and tobacco—and therefore have great bearing on the economy as a whole.

Agricultural growth has been uneven across the subsectors. The promotion of the estates in the 1970s led to 8.6 percent growth compared to only 4 percent growth in the smallholder sector in the same period (Table 4.1). The smallholder sector continued to have sluggish growth until the policy reforms of the early 1990s. Smallholders started growing high-value crops after the Special Crops Act was repealed in 1993. In addition, smallholders experienced better producer prices resulting from liberalization of input and output markets. Following these favorable policies, smallholder production grew by 7.2 percent between 1994 and 1996. This was partly due to the increased adoption of hybrid maize and fertilizer, promoted by higher maize prices, fertilizer subsidies, and increased supplies of credit (Harrigan 2003). During the same period (1970s to early 2000s), the share of GDP of the smallholder sector was around 30 percent, as compared to around 10 percent of the estate sector (Tchale 2006).

Table 4.1—Growth of agricultural subsectors in Malawi

	Sector		
Years	Estates (%)	Smallholder (%)	Total (%)
1970–80	8.6	4.0	4.7
1981–87	4.1	1.8	2.3
1988–93	8.0	0.4	2.6
1994–96	0.3	7.2	5.4
1997–2000	3.9	7.7	4.6
2001–03	3.6	6.2	5.4

Source: Tchale (2006).

[6] Some authors argue that Malawi has a trimodal agricultural sector, with the *Achikumbe* as the third element. See Harrigan (2001).

However, these aggregate growth figures disguise the fact that growth was narrowly confined to the estates and to smallholders with larger holdings. Per capita growth in agriculture output has been marginal, averaging 1.9 percent in the 1970s, -2.3 percent in the 1980s, 5.5 percent in the 1990s, and 0.36 percent between 2000 and 2005 (Malawi, MoAFS 2010). Despite registering positive growth from 1990s to 2005, no evidence exists to suggest that resource-poor farmers have benefited from this growth. Poverty levels in Malawi did not significantly decline in the seven-year period between 1998 and 2005. In 2009 the agricultural sector achieved growth of 13.9 percent (Malawi, MoDPC 2010). The strong agricultural performance in recent years is largely attributed to favorable weather and the government's FISP (see below).

In what follows we provide information on land policies and development strategies under the colonial period, the Banda period (1961–94), and the post-Banda period (1994–present), because of their potential role in rural–urban transformation.

Policies during the Colonial Era

The scramble for land began in the early 1900s with the arrival of European settlers in the Protectorate of Nyasaland, who claimed to legally purchase land off African chiefs, so that by 1919 land had become clearly scarce (Nankumba 1981). In 1925 a land tax was proposed, but not implemented, to encourage owners of large estates to sell land for conversion into African trust land. After the Second World War the colonial government's attention shifted toward land management issues involving increasing agricultural productivity and improving conservation of the natural resource base. These efforts applied to both the estate and smallholder sectors.

The British colonial administration reckoned that its Nyasaland protectorate could become as productive and valuable as Ceylon based on its suitability for tea and sugar production, if only its remoteness could be overcome through efficient transport links (Vail 1975). A rail link was discussed, but the government never seriously considered any public investments to build it. All agricultural development strategies concentrated on estate farming. No plans were put in place for "native" agricultural development until late in the colonial period (under the Federation), when the estate sector's size and contribution to output declined and the colonial government began showing more interest in smallholder-based agricultural development (Nankumba 1981). The food crisis of 1948 forced the colonial government to pay serious attention to staple food production.

Policies during the Banda Era (1961–94)

Upon Malawi's independence in 1964, Hastings Kamuzu Banda, the first president of the Republic of Malawi, faced the need for the country to generate its own development resources. Hence he adopted the export-oriented agricultural growth strategy of the early colonial government, based on estate production. Thus the smallholder sector was once again marginalized and relegated to the role of labor pool and source of land for estate expansion. According to Smale (1995), estate agriculture was favored because it was vital for exports since smallholder export production was deemed unreliable. This bias took several forms. For example, the Land Act of 1965 facilitated acquisition of customary land by the estate sector (Ellis, Kutengule, and Nyasulu 2003). Furthermore, under the Special Crops Act, smallholder farmers were, among other things, forbidden to grow Burley tobacco, a highly profitable crop, until the act was repealed in the early 1990s (Orr 2000). Likewise, smallholder agriculture was implicitly taxed through smallholder producer pricing policies implemented by the state marketing agency, ADMARC (Agricultural Development and Marketing Corporation), whose proceeds were channeled into the development of the estate sector (Kydd and Christiansen 1982). As a result, better-off farmers consolidated their smallholdings to register as estates (Tchale et al. 2001).

By 1998 the estate sector had grown 15-fold, to 1,180,000 hectares, from just 79,000 hectares in 1970 (Orr et al. 1998). Coupled with a high population growth rate of 2.7 percent (NSO 2008a), the transfer of land to the estate sector resulted in further fragmentation of peasant landholdings.

Nevertheless, the growing estate and urban population in the 1970s and 1980s needed to be provided with cheap staple foods. These were to be supplied by a small group of elite smallholder farmers called the *Achikumbe*. With the help of the World Bank, Banda rolled out the National Rural Development Programme (NRDP). The program provided agricultural extension, production inputs, and commodity output markets in an effective manner but to a very limited population (Harrigan 2001). Only 20 percent of the rural population (the Achikumbe) had access to the services and even ventured into Burley tobacco production. Their economic success was, however, capped by the fact that they were forced to market their produce through ADMARC. To conclude, the estate-led agricultural development did not benefit the majority of the smallholder population and resulted in persistent poverty in rural areas.

An analysis of commodity price policy starts with a critical assessment of ADMARC, which was established by the government as the sole market for inputs and outputs for smallholder farmers. These inputs included seeds, fertilizer, and pesticides. Credit was offered by another institution, which was known as the Smallholder Agricultural Credit Association (SACA). For outputs, ADMARC purchased all surplus commodities from smallholder farmers, which were then sold to other sectors of the economy at preset prices that were set by the board itself.

Despite its mandate of social responsibility, ADMARC was instrumental in supporting the estate sector by extracting profits from the marketing of smallholder tobacco production (see Appendix Figure A.1). This allowed the government to subsidize consumer prices for staple food items favoring estate labor and urban consumers (Kydd and Christiansen 1982). From the estate perspective, another effect was that the return to smallholder labor declined dramatically and pushed more peasant labor into wage employment on estates. However, in the long run the declining profitability in the smallholder sector limited the nation's ability to produce enough surplus food for urban and estate consumers, and it even undermined subsistence production.

The commodity price policy implemented through ADMARC was a central issue in structural adjustment. The World Bank pushed for price increases for cash crops, especially Burley tobacco, to trigger a supply response from the smallholder sector, thereby broadening the smallholders' income base. Harrigan (2001) points out that the consequent surge in tobacco and cash crop production displaced staple food production. By 1986/87 the failure to enhance the productivity of staple food production in combination with the collapse of ADMARC due to the advancing market liberalization undermined the country's food security capabilities, which were a central policy objective of the government.

Wage policies were also an important element of the Banda period. In 1969, the government of Malawi introduced the National Wages and Salaries Policy, with strict wage restraint as its main objective. This was reinforced in 1971 by a wage restraint policy requiring employers wishing to make annual wage increases of more than 5 percent to apply for approval to the Wages and Salaries Restraint Committee (van Klaveren et al. 2009; Mkandawire 1999). Five minimum wage rates were set for four different urban areas and for the rural areas. In the 1970s the nominal wages of urban workers grew more than the minimum wage rates. Consequently, real wages fell because there was no way they could keep up with significant price inflation.

Already in 1982 Kydd and Christiansen analyzed structural changes using employment and output data to show that the colonial and post-independence governments limited the economic development opportunities of smallholders by squeezing the rural peasant population into wage labor offered by the estate sector. Van Klaveren et al. (2009) further observed that by the 1990s, small urban employers had difficulty complying with the minimum wage rates, whereas large firms had no problem paying above these rates, hence maintaining a stable and more contented workforce.[7] The public and parastatal sectors reinforced the labor market segmentation and also served as wage leaders. The effect of these policies was probably detrimental to urban employment creation (and perhaps rural nonfarm job

[7] The Ministry of Labour and Vocational Training sets separate urban and rural minimum wages every three years based on recommendations of the Tripartite Wage Advisory Board (TWAB). TWAB is composed of representatives of labor, government, and private employers. By 2008, the statutory minimum wage was set at MWK 142 per day in urban areas and MWK 105 per day in all other areas.

creation) since small and medium-sized enterprises are typically (1) labor-intensive, and account for the largest share of private nonfarm labor, and (2) unable to survive without low-cost labor.

Recent Government Polices (Post-Banda Period: 1994–Present)

The two presidents that followed Banda, Bakili Muluzi and Bingu wa Mutharika, implemented policies to remedy the previous biases against smallholder agriculture, but the processes involved are inevitably slow (Ellis, Kutengule, and Nyasulu 2003). Since 1994, the government has developed six policy documents, all emphasizing agricultural development as a means of moving the country out of poverty.

Heavy investments by the government through its Farm Input Subsidy Programme (FISP) and favorable weather conditions have led to an increase in national maize production in recent years (2006–10), which moved the country from chronic food deficits to the point of exporting maize to neighboring countries (Denning et al. 2009). The FISP addresses the resource constraints that smallholders face by providing productive inputs such as fertilizer at less than 25 percent of the market price. The large scale of the program has reached half to two-thirds of all farm families in the smallholder community, depending on the year (Dorward and Chriwa 2011). After the introduction of the FISP in 2005/06, poverty levels declined to about 40 percent (NSO 2008c). Various innovations have been introduced over the years, dealing with private-sector involvement, targeting and registration of beneficiaries, and promotion of crop diversification, albeit at a slow pace.

Despite the undoubted positive, in fact lifesaving, effect that the program had on the rural Malawian population, the weak relationship between maize production and overall economic growth does not make maize a good driver for growth because of its limited multiplier effect, according to a 2009 World Bank study. The poor market integration of small rural towns, in part due to high transport costs, disconnects rural producers from national markets, especially in areas with medium to low agronomic potential (Minot 2010).

Tobacco, in contrast, has contributed consistently to Malawi's export earnings (annually around 60 percent since 1994) and generated much of the growth in the economy due to its high multiplier effect (World Bank 2009). Nevertheless, the authors of the World Bank report did not predict sustainable growth rates based on tobacco expansion because of a stagnating market for Burley tobacco in the long term. The recent ban on additives in the manufacturing of tobacco products[8] may well accelerate the market stagnation or even trigger its shrinkage. While the full implications of this ban for the global Burley market are not yet established, it underlines the need for Malawi's economy to diversify.

The FISP is the flagship program under the focus area of food security and risk management of Malawi's Agricultural Sector-Wide Approach program (ASWAp) (see Appendix Table A.4). Irrigation development under the Greenbelt Initiative is another major component, which is planned to absorb a third of the total funding allocation under the ASWAp. However, currently most of the funding gap in the ASWAp is related to the Greenbelt Initiative. Consequently, the government aims to steer foreign direct investment into this area. The Greenbelt Initiative is likely to produce high-value cash crops that could supply the raw materials for value-adding industries producing products for export. However, the program falls short in investing in agro processing and market development. Investments in this field would provide market outlets for agricultural production under the other components, facilitate the development of a value-adding industry, and spur economic transformation. Without the Greenbelt Initiative, the contribution of the ASWAp toward moving Malawi from an importing and consuming to an exporting and producing economy will likely remain limited.

[8] This ban was agreed upon by 172 countries at the World Health Organization's Framework Convention on Tobacco Control conference held November 15–20, 2010, in Uruguay.

The shift in policy focus from poverty alleviation to growth with poverty reduction, with emphasis on agricultural development, has been instrumental in poverty reduction in Malawi. The emphasis that pro-poor growth can only be achieved by growth in the sectors where a large number of the poor participate has had its success. Chirwa et al. (2008) observe that the introduction of the government's donor-supported safety net activities made a significant impact on poverty reduction. The smallholder agricultural input support programs such as the Starter Pack, the Agricultural Productivity Improvement Programme (APIP), the Targeted Input Programme (TIP), the Malawi Social Action Fund's (MASAF's) Cash-for-Work program, and, recently, the nationwide FISP have also made an impact in reducing poverty levels in Malawi.

The results of a dynamic computable general equilibrium (DCGE) model indicate Malawi's economy wide growth potential based on accelerated agricultural growth. Based on the crop yield and agricultural productivity potentials identified at the subsectoral level through field trials, the DCGE model indicates that Malawi could reach an average agricultural growth rate of 6 percent during 2005–15. Since agriculture is two-fifths of the Malawian economy, this acceleration of agricultural growth would significantly increase the national GDP growth rate from its current 3.2 percent to 4.8 percent per year (Benin et al. 2008).

In addition to the policies mentioned above, land issues remain important in Malawi. For many years the policy debate about land issues was quiet—until recently, with the Malawi Land Policy of 2002 (Malawi, MoLH 2002). The key aspects of the new land policy are the strengthening of customary land rights, improving access to land for smallholders, and regulating access to land by noncitizens. However, effective implementation of the policy is threatened by lack of political will in the public sector and civil society, and the conversion of freehold of foreign-owned land to a maximum of 50-year leases may undermine investor confidence (FANRPAN 2003).

In Malawi the estate and smallholder sectors are operating under two different landholding systems. Most estate land is under freehold or leasehold, while smallholders operate under a customary land tenure system. Despite the claim that estate expansion has led to land shortages in Malawi, the current conflicts are mostly between villages and family groups and within households. Conflicts between villages and estates play only a minor role (NSO 2009). Unfortunately, the NSO report of 2009 does not give current figures on the share of land under estate production. A rough indication can be gleaned from the fact that freehold accounted for 20 percent of landholdings in the Central and Southern Regions but only 12 percent in the Northern Region. Average smallholder holding sizes for the Northern, Central, and Southern Regions of 1.178, 1.145, and 0.732 hectares, respectively (NSO 2009), point to severe land constraints, especially in the south. Nevertheless, abundant land (up to 2.6 million hectares in 1994) suitable for cultivation lies apparently idle due to reduced soil fertility and administrative conflicts (FANRPAN 2003).

The Role of Nonagricultural Development Strategies

A smallholder production system that is dominated by one crop is likely to be constrained by labor availability during peak labor demand periods—for instance, land preparation and weeding. However, since Malawi's agriculture is rainfed, the labor demand period is relatively short, about four to seven months in a year. Hence, employment opportunities exist in the rural economy for resource-constrained rural dwellers in the form of *Ganyu* (piecemeal work on a daily basis during the agricultural season) but are very limited beyond that. This pool of labor has not yet been tapped to develop cottage industries that add value to commodities supplied by diversified agricultural production and lead to sustainable urbanization of rural growth points.

An International Labour Organisation (ILO) report from 1999 (Mkandawire 1999) claims that the few studies in Malawi suggest that small towns serving smallholders are more prosperous than those around estates because of the greater forward and backward linkages associated with the economic activities that are typically carried out in small towns. This is a felicitous outcome, as it is consistent with the government's focus on smallholder-based agricultural growth. It suggests that Malawi's high

population density paired with its growth potential in the smallholder agricultural sector may foster agglomeration of service and manufacturing (that is, agroprocessing) sectors in smaller towns, thereby preventing rapid urbanization of major towns and the development of slums. The National Physical Development Plan (NPDP) of 1987 placed emphasis on the manufacturing sector to achieve decentralized and balanced industrial development, not just in the big cities but also in secondary growth centers to create job opportunities and thus stem rural–urban migration. However, this plan was never successfully implemented, as witnessed by the increasing share of urban population living in the four major cities over the past four decades (Table 3.1).

Although largely dependent on the agriculture sector, the services sector is becoming increasingly important, accounting for over 40 percent of GDP (Chirwa, Kydd, and Dorward 2006; Chirwa et al. 2008). Expansion in financial services and wholesale and retail trade will continue to drive growth in the services sector in the future. Several pieces of legislation related to banking, microfinance, insurance, and the credit reference bureau were passed in November 2009 with the aim of not only modernizing the financial sector but also improving agricultural prices, which, subsequently, should increase farmers' incomes and contribute to growth in wholesale and retail trade.

The nonagricultural sectors in Malawi are projected to grow but at low rates. According the 2010 annual economic report, mining and quarrying were projected to grow more than the other sectors in 2010 and 2011, but these provide very little employment growth. Appendix Table A.5 presents a summary of growth in the nonagricultural sectors from 2007 to 2011. Benin et al. (2008) estimated the growth of the agricultural sector and the nonagricultural sectors using CGE models. The CGE model simulation results indicate that with modest growth in the agricultural sector and more rapid growth in the nonagricultural sectors, overall national GDP will grow at an average rate of 3.2 percent during 2005–15. This closely matches the average GDP growth rate of 2.8 percent experienced during 1990–2005. With population growth at about 2.2 percent per year, per capita GDP grows at 1.0 percent. With rising per capita incomes, the CGE model indicates that poverty will decline. However, this decline in poverty will remain modest, with national poverty projected to fall from 52.4 percent in 2004 to 47.0 percent in 2015. With such modest poverty reduction and an expanding population, the absolute number of poor people in Malawi would increase from 6.38 million in 2004 to 7.04 million by 2015. However, balanced growth across both agricultural and nonagricultural sectors as well as gradual urbanization means that national income growth will be quite evenly distributed across rural and urban areas. Accordingly, urban poverty is expected to fall from 25.4 to 23.7 percent by 2015, while rural poverty should decline from 55.9 to 50.2 percent during the same period. However, the slow poverty reduction under the baseline scenario and the persistent high levels of poverty, especially in rural areas, underline the need to accelerate growth and poverty reduction if Malawi is to come close to achieving the Millennium Development Goal of halving poverty by 2015. The acceleration of agricultural growth to 6 percent per year and the spillover effects into nonagricultural sectors cause poverty to decline by a further 12.5 percentage points. This would bring down Malawi's poverty to 34.5 percent by 2015 under the Comprehensive Africa Agriculture Development Programme (CAADP) scenario, compared to 47.0 percent under the baseline scenario. Thus, taking population growth into account, achieving the CAADP growth target would lift an additional 1.88 million people above the poverty line by 2015 and would be sufficient to reverse current trends by substantially reducing the absolute number of poor people in Malawi by 2015. Food security would also improve, with annual average per capita cereal consumption rising from 153.5 kilograms under the baseline scenario to 176.7 kilograms by 2015 under the CAADP scenario.

While researchers (Zeller, Diagne, and Mataya 1998) and development experts agree that transport infrastructure, especially rural feeder roads, is critical in stimulating technology adoption and necessary to generate economic growth in rural areas, other elements of transport costs must also be considered. A recent survey of transport providers and a spatial analysis of the infrastructure network (Lall, Wang, and Munthali 2009) concluded that the transport cost per unit load from rural areas to cities (MWK 228.4/ton/km) is about 20 times higher than the cost to ship the same load to international market ports (MWK 10.3–12.1/ton/km). The main reasons for the difference are that transport on domestic routes (mostly feeder roads) is burdened by higher fixed costs, empty back hauls, and smaller (less economical)

trucks. The low volume of trade limits the scope for competition, and hence the study suggests the promotion of intermediate means of transport—not relying on expensive infrastructure and motorized transport—to link rural producers to agro processing or urban centers. While the internal transport sector is burdened by high operating costs, exporting goods is burdened by high travel times (see above).

Malawi is ranked 139 of 181 overall and 25 of 38 landlocked countries with regard to ease of doing business (World Bank and International Finance Corporation 2009). The 2009 *Doing Business in Landlocked Economies* report summarizes the regulatory framework under which small and medium-sized businesses operate in a given country. It does not consider the general business environment such as macroeconomic stability, labor markets, and so on. Small and medium-sized businesses are critical in creating employment because large businesses such as mining operations tend to be capital intensive rather than labor intensive. Malawi also has a particularly low recovery rate when closing down a business. This means a high risk of losing investment capital and therefore discourages business investments. Also, for a country that critically depends on export earnings, the high load of paperwork places a heavy burden on potential exporters, as does the high cost of contract enforcement. Of the 10 indicators analyzed, Malawi fell in the bottom third for half of them, in the middle third for four, and only with regard to paying taxes did Malawi fall in the top third of all economies. This does not constitute an enabling environment for private-sector investment and thus for developing secondary and tertiary industries.

Another major constraint to economic growth in Malawi is the poor and erratic electrical power supply. The 2008 Business Climate Survey (World Bank 2009) cites power supply as the major obstacle to doing business in Malawi. Less than half the generated power in the country is consumed by industry, and residential consumption is concentrated in urban areas. Consequently, companies must resort to power supply from mostly diesel-driven generators, which is very costly in Malawi given the high fuel costs (over US$1.70 per liter in April 2011). Despite efforts to cover the shortfall in power-generation capacity in the medium term, future shortfalls will remain a reality.

So far, we have shown that variance in village population is robustly correlated with the provision of local public services, private markets, and individual property rights. The link is particularly clear when instrumenting population by proximity to rivers, especially within the Volta Valley, where the OCP shock occurred. This correlation between village population and public amenities could be driven by various possible mechanisms, to be investigated in future work, including scale economies in the public sector and the relative scarcity of natural resources**.**

Whatever mechanisms are involved, the magnitude by which larger villages obtain more public services and have more access to private markets and individual land rights is economically significant. The order of magnitude can be described by a comparison of the time trends sweeping Burkina Faso as a whole, driven by national policy and other changes. The point estimates of elasticities reported in Table 4.4a give us the effect of a 1 percent increase in village population, which we can compare to the effect of time associated with our dummy variables for 1996 and 2006. For example, using column 2 for proximity to every item of public infrastructure (including the farthest), villages that are 1 percent larger in terms of population size have infrastructure that is 0.32 percent closer. In contrast, the time trend for new infrastructure projects improved proximity by 16 percent and 74 percent from 1985 to 1996 and to 2006, respectively. Over a 10-year period, village population is likely to increase by much more than 1 percent. For example, using the average rural population growth rate of 2 percent, village population would increase by 25 percent. The implied reduction in travel distance to public infrastructure is 0.32 * 25 percent, or 8 percent. Alternatively, a doubling of village size is roughly equivalent to a decade or two of time trend for most of the variables we consider.

5. CONCLUSION

Our study has shown that although the current level of urbanization is low by world standards, Malawi has, since independence, experienced periods of rapid urbanization in which the urban population grew as much as three times faster than the rural population. Although Malawi was the fastest urbanizing country in Africa at some point, the general trend has been relatively slow rural–urban migration with considerably higher rural–rural migration. Furthermore, the study has revealed that Malawi has experienced modest economic growth over the last decade and a half. However, agricultural growth has been particularly erratic, and while the incidence of poverty has declined, it remains high in rural areas. The lack of nonfarm opportunities, limited crop diversification, and overreliance on tobacco and maize has slowed poverty reduction. The achievement of the Millennium Development Goals will require additional growth in most crops and agricultural subsectors, because Malawi cannot rely solely on growth in maize or tobacco. Broader-based agricultural growth, including growth in pulses and horticultural crops, will be important if economic growth and poverty reduction are to be achieved. Benin et al. (2008) argue that achieving CAADP targets, especially those involving maize, pulses, horticulture, and export crops, still presents a good opportunity to reduce poverty, albeit not matching the Millennium Development Goals

The constraints highlighted above give rise to a reconceptualization and rethinking of strategies for rural–urban transformation. Achieving rural–urban transformation in Malawi requires the formulation of policies that support the positive aspects of rural–urban linkages and interactions and reduce their negative impact. These policies need to be based on strengthening local democracy and civil society, thereby making local government accountable and making sure that the needs and priorities of both rural and urban poor groups are taken into consideration. Rather than looking at rural–urban migration negatively, it is better to focus on building the capacity of local governments in small and intermediate urban centers to compete with larger cities for new investments and help retain added value from local products that hold the best promise for more decentralized urban systems. However, the capacity to compete often depends on better transport and communication links, which require the support of central government.

Rural–urban transformation also entails deeply reflecting on the current state and dynamics of both rural and urban poverty. To achieve balanced and sustainable growth, the policy frameworks on private-sector development, fiscal and administrative decentralization, and environmental and land issues, among others, need to be harmonized, and, above all, their implementation will need to be effectively coordinated. While the high agronomic potential and relatively good, although expensive, domestic market connections would favor an agriculture-led development strategy, which offers the highest poverty reduction potential, two other factors currently, dampen such prospects. First, the purchasing power within Malawi is too low to allow for the rapid development of a strong domestic market. Second, long travel times to international markets render Malawian agricultural products uncompetitive as long as they are not in the “low volume, high value” category. It would therefore appear prudent for Malawian policymakers to consider regional (not overseas) market integration and the development of an agro processing industry in major and secondary urban centers. While the ASWAp places great emphasis on increasing productivity and sustainable resource management, agribusiness and market development enjoy relatively modest funding allocations under the program. Given the faster growth of urban compared to rural areas, Malawi badly needs industries that add value to its agricultural production and provide employment opportunities to absorb and integrate rural migrants into a growing economy. Hence, harmonizing the implementation of the ASWAp with physical planning and the development of an attractive business environment appears to be necessary to facilitate economic diversification and achieve balanced, sustainable growth in Malawi.

APPENDIX: SUPPLEMENTARY TABLES AND FIGURE

Table A.1—Access to major cities in each of Malawi's administrative regions

	Average Travel Time			
	< 1 Hour	1–3 Hours	3–5 Hours	5–10 Hours
Northern Region	7.8	60.7	20	11.4
Central Region	15.3	72.8	12	0
Southern Region	13.2	68.9	16.7	1.2
Malawi	**13.3**	**69.2**	**15.9**	**1.6**

Source: Lall et al. 2009 and authors' calculations.

Table A.2—Share in GDP and labor force by sector, 2004–2009

	Share in GDP by Activity (Constant 2006 Prices) (%) (†)						Distribution of Jobs across Sectors (2007) (%) (‡)	
	2004	2005	2006	2007	2008	2009	Urban	Rural
Agriculture/mining	29.1	27.2	29.8	31.3	31.0	32.8	14	84
Manufacturing/utilities	11.7	11.5	11.1	10.9	11.4	11.1	5	1
Construction	3.0	3.2	3.4	3.5	3.5	3.5	5	3
Marketing	20.3	21.5	21.3	21.2	21.0	20.7	27	4
Finance / social services	15.2	15.3	15.7	15.5	15.8	15.6	23	4
Other	15.2	15.2	14.9	14.8	15.9	15.9	26	4
Subtotal	94.5	93.8	96.2	97.4	98.6	99.6	100	100
Less: FISIM*	-3.8	-4.8	-5.2	-5.3	-5.3	-5.4		
Plus: Taxes less subsidies	9.3	11.0	9.0	7.9	6.7	5.8	+	
GDP in constant 2006 prices (million MWK)	*375,296*	*396,701*	*423,946*	*447,075*	*485,512*	*522,386*		

Sources: (†) NSO, National Accounts Department; (‡) NSO Statistical Yearbook 2009.

Note: * Financial intermediation services indirectly measured.

Table A.3—Districts identified in the NPDP of 1987 according to the availability of land resources allowing for in-migration or reaching their carrying capacity in the year 2000, leading to out-migration

	In-Migration	Out-Migration
Northern Region	Chitipa Karonga Runphi Mzimba	Nkhata Bay
Central Region	Kasungu Nkhotakota Salima Lilongwe Ntcheu	Ntchisi Dowa Mchinji Dedza
Southern Region	Mangochi Machinga Mwanza Chikwawa Nsanje	Zomba Chiradzulu Blantyre Thyolo Mulanje

Source: Malawi, Office of the President and Cabinet (1987).

Table A.4—ASWAp results framework costing (US$)

COMPONENT	SUBCOMPONENT	US Dollar		Percent	
Focus Area 1: Food security and risk management	Comp 1.1 Maize self-sufficiency through increased maize productivity and reduced postharvest losses	651,840,450	821,553,450	37.2%	47%
	Comp 1.2 Diversification of food production and dietary diversification for improved nutrition at household level, with focus on crops, livestock, and fisheries	154,513,000		8.8%	
	Comp 1.3 Risk management for sustainable food availability at national level	15,200,000		0.9%	
Focus Area 2: Commercial agriculture, agroprocessing, and market development	Comp 2.1 Agricultural exports for improved balance of trade and income	41,842,000	85,806,000	2.4%	5%
	Comp 2.2 Commercial production and agroprocessing for import substitution and domestic market development	40,254,000		2.3%	
	Comp 2.3 Public–private partnerships in input and output market development	3,710,000		0.2%	
Focus Area 3: Sustainable agricultural land and water management	Comp 3.1 Sustainable agricultural land management	57,020,000	640,690,000	3.3%	37%
	Comp 3.2 Sustainable agricultural water management and irrigation development through the Greenbelt Initiative	583,670,000		33.3%	
Key Support Services 4: Technology generation and dissemination	Comp 4.1 Results and market-oriented research on priority technology needs and provision of technical and regulatory services	6,519,850	108,298,350	0.4%	6%
	Comp 4.2 Efficient farmer-led extension and training services	101,778,500		5.8%	
Key Support Services 5: Institutional strengthening and capacity building	Comp 5.1 Strengthening public management systems	31,235,000	67,156,000	1.8%	4%
	Comp 5.2 Capacity building of the public and private sectors	35,921,000		2.1%	
Cross-Cutting Issues 6: HIV prevention and AIDS impact mitigation	Comp 6.1 Mainstreaming gender and HIV/AIDS	28,500,000	28,500,000	1.6%	2%
	Grand Total	**1,752,003,800**		**100.0%**	

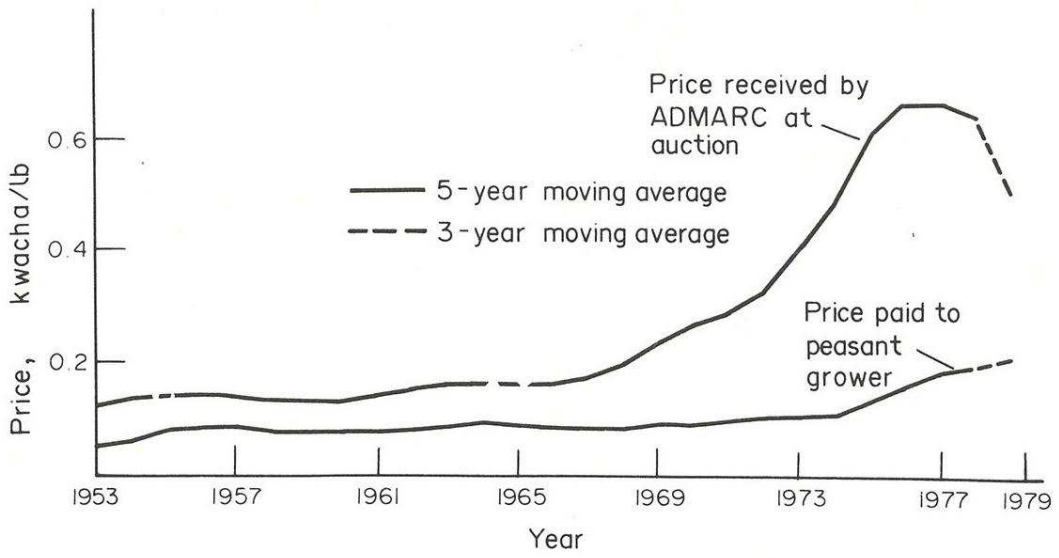
Source: ASWAp document and authors' calculations.

Table A.5—Sectoral annual percentage growth rate

Sector	2007	2008	2009	2010	2011
Mining and quarrying	4.7	6.8	12.8	52.8	26.9
Manufacturing	3.6	12.2	5.4	6.2	5.1
Electricity, gas, and water supply	5.4	3.9	4.7	6.7	8.2
Construction	9.2	8.1	6.4	19.9	4.2
Wholesale and retail trade	4.6	8.2	5.6	5.1	6.8
Transport and storage	5.5	5.4	6.7	9.6	11.2
Accommodation and food services	5.7	7.4	13.2	17.9	14.9
Information and communication	6.1	51.3	9.4	19.4	10.4
Financial and insurance activities	8.8	11.7	7.9	9.8	6.6
Real estate activities	3.7	3.2	5.5	9.6	5.6
Public administration and defense	3.2	9.5	4.9	9.7	5.6

Source: National Account and Balance of Payments Committee.

Figure A.1—Price received by ADMARC at auction and price paid to peasant grower for dark-fired tobacco: Five-year moving averages



Source: Kydd and Christiansen (1982).

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Fax: +1-202-467-4439
Email: ifpri@cgiar.org

IFPRI LILONGWE OFFICE

PO Box 31666
Lilongwe 3
Malawi
Tel.: +265-1-789747
Email: IFPRI-Lilongwe@cgiar.org