



### MALAWI ECONOMIC MONITOR

MAY 2016

ABSORBING SHOCKS, BUILDING RESILIENCE

World Bank Office Malawi

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The World Bank team welcomes feedback to help improve the structure and content of the Malawi Economic Monitor. Please send comments to Richard Record (<a href="mailto:rrecord@worldbank.org">rrecord@worldbank.org</a>) and/or Priscilla Kandoole (<a href="mailto:pkandoole@worldbank.org">pkandoole@worldbank.org</a>).

### **TABLE OF CONTENTS**

Overview	1
1. Economic developments	5
Economic growth is slowing across the African continent	5
Malawi's rate of growth remains subdued as weather shocks continue to hit the country	
Government's fiscal performance is showing signs of improvement	
Careful expenditure prioritization is key for macroeconomic stabilization	
Growth in Malawi's public sector debt is now taking place at a more sustainable pace	13
Inflationary pressures remain, but there are some signs of gradual easing	13
The Kwacha continues to follow a volatile path	
A tight monetary stance has helped to curb inflationary pressures	15
Exports have been mixed, with performance varying across sectors	15
Lower energy costs have helped to contain the cost of imports	
The financial sector faces pressures from a slowing economy	17
Private sector confidence remains weak as weather shocks add to investment climate woe	s18
Priority steps to lay the foundations for a growth recovery	18
2. Special topic: investing in agricultural resilience	
Malawi's agricultural sector is highly vulnerable to risks	19
Risks have far-reaching effects on economic and poverty outcomes	21
Different approaches to agricultural risk management	22
Breaking the vicious cycle	25
An agenda for building agricultural resilience in Malawi	28
Data	30
References	21

### **BOXES**

Box 1: Malawi is still receiving a large amount of development assistance, but it is increasingly off budget	9
Box 2: Pilot reforms to the FISP show promise	
Box 3: El Niño, La Niña and what they mean for Malawi	20
Box 4: Different risks and the methodology for estimating the value of agricultural losses	
Box 5: Improving productivity for female farmers in Malawi	
Box 6: Estimating the impact of export bans on maize and soya in Malawi	
FIGURES	
Figure 1: Malawi's economic growth rate has fallen below regional averages	
Figure 2:as the country faces a second year of food deficits	
Figure 3: Government's fiscal deficit has begun to be closed	
Figure 4:leading to slower growth in public sector borrowing	
Figure 5: The share of ODA that is on budget has declined sharply	
Figure 6: Budget allocations reflect the dominance of recurrent over development expenditures	
Figure 7: The share of recurrent expenditure on public wages and debt service is just below half	
Figure 8: International commodity prices, particularly energy prices, have stabilized at a new lower level	
Figure 9: A gap has opened up between rural and urban inflation, driven by rising food prices	
Figure 10: Despite higher reserves, fundamentals continue to put pressure on the exchange rate	
Figure 11: Interest rates remain high due to high inflation	
Figure 12: Malawi's exports in 2015 saw a modest decline, but with differing sectoral performance	
Figure 13:and imports contracted across most sectors over the same period	
Figure 14: Banking sector capital adequacy ratios are declining, but remain above minimum thresholds	
Figure 15: The share of non-performing loans has fallen	
Figure 16: Malawi's growth in GDP closely follows growth in agriculture	
Figure 17: Three typologies of risk	
Figure 18: Methodology for estimating agricultural production losses	
Figure 19: The frequency and value of production losses is high in Malawi	
Figure 20: Risk management through a layered approach	
Figure 21: Farm budgets show that producing maize has become unprofitable without subsidized inputs	
Figure 22: Snapshot of the cost of policies to the sector	
Figure 23: Monthly maize price volatility in Lilongwe, Blantyre, Mzuzu, and Zomba	
Figure 24: Ideal risk management, investments and losses	
Figure 25:versus the current situation in Malawi	21
TABLES	
Table 1: Fiscal accounts	
Table 2: Factors explaining why the productivity of female farmers is lower	
Table 3: Maize price variations are relatively high in Malawi but equal across the country	
Table 4: Selected macroeconomic indicators	30

### **OVERVIEW**

The Malawi Economic Monitor (MEM) provides an analysis of economic and structural development issues in Malawi. This edition of the MEM was published in May 2016. It follows on from the two previous editions of the MEM, published in April and October 2015, with future editions to follow twice each year.

The aim of the publication is to foster better-informed policy analysis and debate regarding the key challenges that Malawi faces in its endeavors to achieve high rates of stable, inclusive and sustainable economic growth.

**The MEM consists of two parts:** Part 1 presents a review of recent economic developments and a macroeconomic outlook. Part 2 focuses in greater depth on a special, selected topic relevant to Malawi's development prospects.

In this edition of the MEM, the focus of the special topic is on agricultural risk management. Malawi is now set to suffer a second year of poor harvests due to the effects of a drought that is sweeping Southern Africa. This drought has had a serious impact both on the economy and on food security, requiring a major humanitarian response. The current situation underscores Malawi's serious need to improve the resilience of the agricultural sector and to develop a better system of risk management. With the country expected to continue to face climate-induced shocks into the future, it is vital that the Government considers how best to mitigate the impact of such shocks.

### **ECONOMIC DEVELOPMENTS**

In 2015 Malawi recorded a GDP growth rate of just 2.8 percent, with this low rate the result of both adverse weather conditions and macroeconomic instability. Flooding in southern districts followed by a countrywide drought resulted in a contraction in agricultural production. Maize, the key crop in terms of food security, recorded a 30.2 percent year-on-year drop in production. As a result, an estimated 2.8 million people (17 percent of the population) were unable to meet their 2015/16 food requirements.

With food accounting for half of the consumer price basket, the sustained increase in maize prices has pushed up the rate of inflation. In addition, an uncertain macroeconomic outlook and a strengthening US dollar resulted in the sharp depreciation of the Kwacha, the value of which declined by more than 30 percent during the second half of the year. This exacerbated the upward pressure on non-food inflation. By the end of

2015, the average annual headline inflation rate stood at 21.9 percent.

During recent years, weak fiscal discipline has been a core driver of macroeconomic instability. Following a major public financial management scandal in 2013, the level of on budget development assistance received by Malawi has declined significantly. As a result, the Government has run persistently large fiscal deficits. Similarly, there has been upward pressure on expenditure as a result of rising debt service costs, increasing public sector wage demands, the high cost of agricultural subsidy schemes, and the need to settle outstanding arrears. The authorities have borrowed heavily from domestic sources to finance fiscal deficits, which in turn has pushed up inflation and lending rates, crowding out private sector investments.

However, during the second half of 2015, efforts to consolidate public expenditure begun to produce positive results, with the domestic borrowing requirement falling to within the year-end level agreed upon under the terms of Malawi's International Monetary Fund (IMF) program. While revenue collection underperformed by 13.1 percent during July-December on account of the economic deceleration, the Government managed to trim expenditure by approximately 19.4 percent. Efforts to improve budget execution and to exercise stronger central oversight of public expenditure across Ministries, Departments and Agencies (MDAs) appear to be producing positive results.

As in 2015, Malawi will face significant challenges in 2016 as the country adjusts to the impact of multiple shocks. On the upside, if the Government continues to implement its consolidation appropriately, the reduced public sector borrowing requirement will ease inflationary pressures. Eventually, this will facilitate gradual reductions in interest rates, thus improving business confidence and leading to higher levels of investment. However, this will require more intense efforts to reform systems of public financial management and public service delivery. In particular, it will require politically challenging adjustments to subsidy programs, including the Farm Input Subsidy Program (FISP). These reforms will be able to build on the successful private sector retailing pilot implemented in 2014/15. It will also require restraint in the management of public sector wages. However, these are necessary measures if the Government is to restore the macroeconomic stability required to create sufficient fiscal space for vitally necessary public sector resilience building investments.

The growth outlook for 2016 is projected to remain weak, with the late onset of rains and erratic dry spells associated with the El Niño weather pattern, having depressed expectations for agricultural production and in turn for consumer demand. Malawi's agricultural sector is predominantly rainfed and operates within the framework of a short growing season. Early estimates point to a 12.4 percent decline in maize production for the 2015/16 growing season, against an already low 2014/15 base. Similarly low levels of production are expected for other crops, except for tobacco, with the production of this crop projected to increase by about 3.8 percent in 2016 relative to the figure for 2015 sales.

The fiscal deficit for FY15/16 is projected to reach a value of 5.7 percent of GDP, compared to the figure of 5.4 percent recorded in FY14/15. This is premised on continued efforts to restrain expenditures in the face of weak revenue collections and expenditure pressures on areas of the budget that are exposed to foreign exchange movements. Of these, the most significant is the FISP. Continued fiscal tightening, while necessary to restore balances, will also contribute to weaker demand in the short term.

In 2015, the Government implemented pilot reforms to the FISP. If scaled up in 2016, these have significant potential to reduce costs. While expenditure on the FISP still resulted in budget overruns in FY 2015/16, the piloted reforms have produced substantial cost and efficiency savings. These include a reduction in the level of subsidy and the use of a private sector retailing model.

Inflation is estimated to remain elevated in the first half of 2016, but is projected to decline after the maize harvest season and into the second half of the year, before beginning to rise again towards end 2016. The average rate of inflation is projected to stand at 20.8 percent for 2016 as a whole.

As a net energy importer, Malawi is expected to continue to benefit from improved terms of trade and lower imported energy costs as a result of declining world oil prices. This will offer some respite in terms of non-food inflation. However, overall price trends are expected to continue to be primarily driven by food prices. With the persistently high inflation rate, low levels of investment, and a structural deficit on the current account, the Kwacha is expected to remain under pressure.

The first half of the 2015/16 agricultural season has been very poor, largely due to the ongoing El Niño pattern affecting large areas of Southern Africa, with this pattern having the strongest impact on record. This has exacerbated food insecurity, in part by reducing agricultural labor opportunities. In

addition, the drought delayed the 2016 harvest, extending the current lean season well into April. The proportion of the population suffering food insecurity during the second half of 2016 and in early 2017 may reach the highest levels since the 2002/03 food crisis. Thus, it is imperative that the Government utilize existing policy instruments to meet the needs of food insecure households to the greatest extent possible, as well as managing a coordinated response by development partners.

Were it not for a second year of climate-induced shocks, improved fiscal and monetary policies would likely be laying the foundations for the beginning of a recovery. However, given the severe food shortages that the country is now facing, short term economic recovery is unlikely in 2016.

A recovery to growth is possible in 2017, although this will depend on continued fiscal restraint and an effective response to the challenges resulting from a second year of high levels of food insecurity. By addressing the underlying causes of both non-food and food inflation, interest rates may begin to fall to levels that would begin to restore business confidence. This would lead to increased private sector investment and job creation, both of which Malawi desperately needs. To achieve this, policy makers should consider implementing the following priority actions:

- Continued efforts to exercise tight control over public expenditure: This will involve careful control of expenditure commitments, prudent management of growth in the public sector wage bill, and strict enforcement of budget ceilings across all MDAs to avoid expenditure overruns.
- Continued implementation of a tight monetary stance and the maintenance of positive real interest rates: Interest rates will only begin to fall once the underlying causes of high non-food and food price inflation are addressed.
- Implementation of reforms to open up fiscal space and an increasing emphasis on resilience-building development investments rather than recurrent expenditures: In particular, reforms to the FISP create opportunities to free up public resources for alternative, possibly more productive uses. Creating such fiscal space is necessary to enable Malawi to invest in building the foundations for stronger mediumterm growth and higher levels of resilience.

On aggregate, Malawi is expected to record a subdued rate of GDP growth in 2016, with an expected rate of 2.6 percent. The low growth reflects the poor performance of the agricultural sector; the tightened fiscal stance; and continued low business

confidence in manufacturing and services. As Malawi's population continues to expand at a rapid rate, the share of the population living below the international poverty line is expected to increase slightly in 2016.

### INVESTING IN AGRICULTURAL RESILIENCE

Despite the relatively high level of public spending on agriculture, risk management continues to be a significant challenge for Malawi's agricultural sector. Recognizing the importance of agriculture for household food security and for the overall economy, the Government spends about US\$ 250 million annually on this sector. Much of this is allocated for the provision of subsidized inputs, particularly in the case of maize production, with this expenditure justified in terms of this crop's central place in the diet of Malawians. However, in spite of the Government's high levels of spending on the sector and the significant presence of donors and NGOs, risks continue to have major negative impact on agriculture. As a result of risks, Malawi has recorded negative rates of agricultural GDP growth during six years in the period from 1992 to 2014.

Risks associated with drought, pests and diseases, and price volatility are the most significant for Malawi's agricultural sector. Production losses resulting from adverse events related to these risks amounted to an average annual figure of US\$ 149 million, or 4.3 percent of gross agricultural output, in the period from 1980 to 2012. With the central position of agriculture in the economy, as a source of food, incomes, employment for a large proportion of the population, and of revenue and foreign exchange for the Government, any shock experienced by the agricultural sector has a substantial impact on the overall economy.

The negative impacts of these risks on household food security result in high levels of Government spending on humanitarian aid and coping measures. In turn, this diverts resources from the financing of longer-term development objectives, including more strategic risk management systems. In the period from 2008 to 2012, the Government spent an average of US\$ 100 million annually on food aid. In the same period, around US\$ 40 million was spent annually on investments such as irrigation and research that could mitigate or decrease the impacts of agricultural risks.

Despite policy efforts to stabilize maize supply and prices, in recent years Malawi has seen a higher level of maize price volatility than neighboring countries. This volatility has been exacerbated by export bans. Maize prices at the retail level are much more volatile in Malawi than in the rest of the region. The coefficient of variation for average monthly

maize prices in Malawi was 62 percent in the period from 2007 to 2014, compared to the figure of 36 percent for the Sub-Saharan Africa region as a whole and the figure of only 24 percent in neighboring Zambia.

At some points, artificially low maize prices have undermined producers' potential to generate profits. Without subsidies, farmers have little incentive to invest in more productive inputs to grow maize. Since 2008, nominal prices for beans and groundnuts have increased significantly. However, maize prices have increased at a far slower rate than the rate of increase for the price of inputs. Hence, the net income of maize producers declined in this period.

The large losses resulting from production risk in Malawi stem primarily from the low level of on-farm adoption of risk-management practices and technologies. Increasing producers' capacity to mitigate risks at the farm-level is crucial to reduce losses and to increase resilience in the sector. At the same time, scaling up risk management measures at the farm level is also likely to have positive effects on productivity and competitiveness in general. However, such initiatives will only be successful if an incentivizing environment is in place. To enable the emergence of this environment, Malawi should implement consistent, evidence-based food security and productivity policies. This special topic therefore recommends the following:

- Increase the uptake of on-farm management practices: Ensuring that farmers have access to markets that enable them to generate profits from their outputs is crucial to ensure the sustainable uptake of improved risk management practices. Thus, any measure to promote diversification or risk mitigation technologies should be accompanied by interventions to strengthen linkages between farmers and reliable buyers, new export partnerships, or on-/off-farm processing activities. Farmers must also have better access to extension services, which must be better geared and equipped to meet their needs.
- Reduce price distortions and volatility: Measures to promote freer trade through the implementation of predictable and transparent policies will promote production and exports by enabling fair prices at all levels of the supply chain.
- Improve coordination between the agencies responsible for both maize marketing and risk coping interventions: There is a need to redefine the roles of and coordination between the Strategic Grain Reserve, the Agricultural Development and Marketing Corporation, and

- the Department of Disaster Management Affairs to improve transparency and predictability in maize market and food aid interventions.
- Strengthen and align agriculture risk management policy with broader policies for the sector's development: Risk management policies should be made to be more responsive to the sector's need by aligning these policies

with a long-term vision for the sector, supported by the implementation of a functional agricultural information management system. Other important steps would be to harmonize existing policies with international commitments and to strengthen existing mechanisms to coordinate donors to achieve the effective use of resources.

### 1. ECONOMIC DEVELOPMENTS

### Economic growth is slowing across the African continent

- 1. In 2015, the average annual rate of economic growth for the Sub-Saharan African Region declined to 3.0 percent, down from 4.5 percent in 2014. This deceleration was largely the result of low global commodity prices; the weak growth recorded by major trading partners; increasing borrowing costs; and adverse domestic developments in a number of countries throughout the region. The region has not recorded such a low rate of growth since 2009, in the period immediately following the advent of the global financial crisis. This poor performance contrasts sharply with the robust growth recorded in the period from 2003 to 2008, when the average annual growth rate stood at 6.8 percent.
- 2. With commodities contributing to a significant proportion of the region's exports, the decline in commodity prices has had a significant negative impact. Oil, ore and metals account for more than 60 percent of the region's total exports. By contrast, manufactured goods account for only 16 percent of the total and agricultural products 10 percent. The average price of oil dropped significantly over the year, declining by approximately 67 percent from the figure of US\$ 108 / barrel recorded in June 2014 to US\$ 38 / barrel in December 2015. Oil prices continued to fall in early 2016 and remain low, despite a recent rebound, due to strong supply conditions. Prices of agricultural commodities and metals declined as well, but at a slower pace than the price of oil.
- 3. There has been a significant variation in the economic performance of countries within the region, with the sharpest distinction between net oil importers and net oil exporters. In general, the impact of the decline in commodity prices has had a significant net negative impact on oil exporters. However, the performance of a number of non-energy mineral exporters, including South Africa, Zambia and Zimbabwe, has also declined. While these countries may have benefited from lower oil prices, this was offset by the sharp declines in the price of metals, their main commodity export. Drought conditions across Southern Africa have also curtailed agricultural production and hydropower generation, exacerbating domestic issues in several countries.
- 4. With global commodity prices likely to remain low at least into the short term, the prospects for Sub-Saharan Africa as a whole are subdued, with a projected average regional growth rate of 3.3 percent in 2016. Commodity prices are expected to remain low, with only a slow recovery to the global economy expected, especially in emerging markets and developing economies. External financing conditions are expected to remain tight. There is a potential for a recovery in 2017, driven by gradual improvements in the region's largest economies if commodity prices stabilize and policies become more supportive of growth.
- 5. The most significant risks would relate to a sharper than expected slowdown in China. With the increasing importance of services and consumption to China's economy, with a shift away from manufacturing, it is possible that the demand for commodities will continue to decline, particularly if growth in other parts of the world remains slow. If African countries, particularly those heavily dependent on the export of commodities, fail to make the necessary adjustments, this could create uncertainty, and weigh on investor sentiment threatening macroeconomic stability in some of the region's largest economies. Worsening of drought conditions in Southern Africa and an inadequate response could also depress growth and exacerbate inflationary pressures.

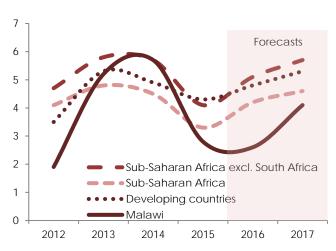
### Malawi's rate of growth remains subdued as weather shocks continue to hit the country

- 6. In 2015, Malawi recorded a GDP growth rate of only 2.8 percent. This low rate was largely the result of the impact of adverse weather conditions and macroeconomic instability. In particular, floods affected the southern regions early in the year, followed by a drought affecting the entire country. As a result of these conditions, agricultural production contracted over the 2014/15 growing season. The output of maize, the most significant crop for the achievement of food security, declined by 30.2 percent year-on-year. Because of this decline, an estimated 2.8 million people, or 17 percent of the population, were unable to meet their food requirements in FY 2015/16.
- 7. The agriculture sector is the most significant driver of economic growth, with maize being the most significant crop. Thus, the drought conditions that affected this crop had a strong impact on Malawi's overall economic performance. In 2015, the overall output of the agricultural sector contracted by 2.0 percent of GDP. Growth in the manufacturing and services sectors was subdued, with the manufacturing sector recording a growth rate of 4.4 percent and the services sector a rate of 5.1 percent. The slower rates of growth recorded by these two sectors was largely the result of a decline in domestic demand and a deceleration in the growth of Malawi's key trading partners.

- 8. In Malawi, food accounts for around half of the consumer price basket. Thus, the sustained increase in maize prices resulting from the limited supply had a significant upward inflationary impact. In addition, the uncertain macroeconomic outlook and a strengthening of the US dollar resulted in a sharp depreciation in the value of the Kwacha, which declined by more than 30 percent during the second half of the year. This depreciation exerted upward pressure on the non-food inflation rate. Thus, by the end of 2015, the average annual headline inflation rate stood at 21.9 percent.
- 9. Weak fiscal discipline has been a core driver of macroeconomic instability during recent years. Following a major public financial management scandal in 2013, the level of on-budget development assistance received by Malawi has declined dramatically. Following this decline, the Government has persistently run large fiscal deficits. The Government has come under pressure to increase expenditure as a result of increasing debt service costs; rising public sector wage demands; costly subsidy schemes; and the need to settle outstanding arrears. To finance fiscal deficits, authorities have borrowed heavily from domestic sources. This has exerted an upward pressure on inflation and lending rates, crowding out private sector investment.
- 10. However, in the second half of 2015, the Government's efforts to consolidate public expenditure produced positive results. The domestic borrowing requirement fell to within the end-year levels agreed upon according to the terms set by Malawi's IMF program. While the economic deceleration resulted in underperformance in the collection of revenue by 13.1 percent in the period from July to December, the Government managed to reduce expenditure by approximately 19.4 percent over the same period. Efforts to improve budget execution and to exercise stronger central oversight of public expenditure appear to be producing positive results.
- 11. In 2016, Malawi's economic performance is projected to remain weak. The late onset of rains and the erratic dry spells associated with the El Niño weather pattern have weighed on agricultural production levels, with a consequent impact on consumer demand (see Figure 1). In particular, the prolonged droughts have resulted in severe crop failures in the southern region and parts of the central region. Malawi's agricultural sector is predominantly rain-fed and operates in the context of a short growing season. Second-round agricultural production estimates suggest that the maize output will decline by 12.4 percent in the FY 2015/16 growing season, from the low base recorded in FY 2014/15. Similar declines are expected for the production of other crops, with the exception of tobacco, the production of which is estimated to increase by 3.8 percent.

Figure 1: Malawi's economic growth rate has fallen below regional averages...

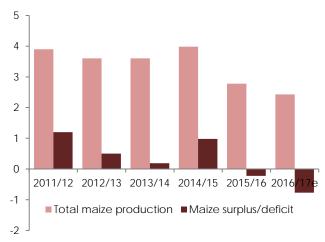
GDP growth adjusted for inflation, annualized, percent



Source: World Bank Global Economic Prospects

Figure 2: ...as the country faces a second year of food deficits

Annual maize production/surplus/deficit, millions of tons



Source: World Bank staff based on Malawi Vulnerability Assessment Committee data

12. With two years of adverse weather conditions, it is estimated that around a quarter of Malawi's citizens will not be able to fulfill their food requirements in FY 2015/16. The second-round agricultural production estimates cited previously suggest that the total maize output will stand at 2,414,313 metric tons. This is significantly lower than the figure of 3,215,135 metric tons that is the estimated requirement for national food consumption, seed, stock feed and industrial use (see Figure 2). With a deficit of approximately 1,290,000 metric tons, it is estimated that the number of people facing food insecurity will increase to around 6.5 million people, or 39 percent of the population, over FY 2015/16, the highest level since the FY 2002/03 food crisis.

- 13. In 2016, Malawi will need to further implement politically challenging measures to adjust to the impact of multiple shocks. If the Government continues to successfully implement steps towards fiscal consolidation, the decline in the public sector borrowing requirement would significantly reduce inflationary pressure. In turn, this may result in a gradual decline in interest rates, restoring the level of confidence of the private sector and supporting private sector investment. However, this will require more intense efforts to reform public financial management systems and public service delivery. In particular, it will require politically challenging adjustments to subsidy programs, including the FISP, and prudent management of growth in the public sector wage bill. While challenging, these steps are vital if the Government is to restore the degree of macroeconomic stability necessary to create sufficient fiscal space for public sector investments that will build resilience.
- 14. If the Government continues to exercise fiscal restraint and implements effective responses to the food insecurity challenges, a growth recovery in 2017 is feasible. If the Government addresses the underlying causes of both non-food inflation (through prudent fiscal management) and food inflation (through a coordinated food crisis response), it is possible that interest rates will begin to fall to levels that would restore the confidence of the private sector. In turn, this would drive increases to the level of private sector investment and create an increased number of productive job opportunities.
- 15. From what was already an adverse 2015, Malawi is expected to record subdued 2016 growth of 2.6 percent.<sup>1</sup> This is due to the weak performance of the agriculture sector and the ongoing widespread food insecurity, exacerbated by a tightened fiscal stance and continued weak business sentiment in the manufacturing and services sectors. Output in the agricultural sector is projected to contract by 2.2 percent during 2016, while industry is projected to grow at 4.2 percent and services at 4.6 percent.
- 16. In 2016, with Malawi's high rate of population growth and low rate of economic growth, the proportion of the population living in poverty is expected to see a slight increase. With the rate of population growth more than offsetting the modest rate of economic growth that Malawi is expected to record in 2016, the proportion of the population living below the international poverty line (US \$1.9/day, 2011 PPP) is expected to increase slightly, from 69.6 percent in 2015 to 69.8 percent by 2016.<sup>2</sup> Following this, Malawi's poverty rate is projected to decline very slightly, to 69.5 percent in 2017.
- 17. In order to improve economic performance in the medium term, it is essential that Malawi undertakes investments and reforms to build resilience and reduce vulnerability to climate shocks. The impact of climate shocks on Malawi's economy is already clearly apparent from the declining growth rate and deteriorating poverty outcomes. However, despite the need for longer-term investments to build resilience to these shocks, in recent years, development expenditure has been cut to create space for crisis response expenditures and overruns in recurrent expenditure. The Government faces the significant challenge of balancing the need to finance short-term requirements, including measures to prevent and address humanitarian crises, against the need for development expenditure that is the only way to build the level of resilience to the impact of climate shocks, and thus prevent similar crises from having a similar negative impact in the future.

### Government's fiscal performance is showing signs of improvement

18. Over recent years, weak fiscal discipline has been a core driver of Malawi's macroeconomic instability. Following a major public financial management scandal in 2013, the level of on-budget development assistance received by Malawi has declined dramatically. Following this decline, the Government has persistently run large fiscal deficits. Spending pressures arise from increasing debt service costs; a rising public sector wage bill; costly subsidy schemes; and the need to settle outstanding arrears. To finance fiscal deficits, authorities have borrowed heavily from domestic sources. This has exerted an upward pressure on inflation and lending rates, crowding out private sector investment. In FY 2014/15, the data indicates weak fiscal performance, with the Government recording lower than expected levels of revenue and incurring sharply higher levels recurrent expenditure. Although the value of the deficit declined relative to the previous year, the narrowing of the gap was achieved primarily through a contraction in development expenditure, without a corresponding reduction in recurrent expenditure.

<sup>&</sup>lt;sup>1</sup> Projection based on World Bank staff estimates using MFMod.

<sup>&</sup>lt;sup>2</sup> In October 2015, the World Bank updated the global poverty line used to track progress across countries in reducing extreme poverty. The new poverty line has been revised from US\$ 1.25/day (based on 2005 prices) to US\$ 1.9/day (based on 2011 prices). A periodic update is needed to account for evolving differences in the cost of living across the world. The updated US\$ 1.90/day poverty line expresses, in 2011 prices, the same real value (in poor countries) of the US\$ 1.25/day line at 2005 prices. While some countries have seen differences in estimates of the share of the population living below the new international poverty line, the differences for Malawi are very small. In 2010/11, 74.95 percent of Malawi's population was living below the poverty line measured at US\$ 1.25/day compared to 73.63 percent at US\$ 1.90/day.

19. By the end of the first half of FY 2015/16, efforts to consolidate public expenditure started to produce positive results. In particular, the domestic borrowing requirement fell to a level significantly lower than targeted, with a narrowing of the fiscal deficit. Although the outturn for total revenue and grants was disappointing, with an underperformance in the area of revenue collection of 13.1 percent (MWK 51 billion), the Government exerted significantly improved control over total expenditures by MDAs. Specifically, the value of these expenditures was MWK 94 billion lower than targeted levels, representing a decrease of 19.4 percent. However, the level of recurrent expenditure had been contained in part by delayed payments of subsidies for fertilizers under FISP. Going forward, the challenge is to maintain fiscal discipline and to avoid the buildup of arrears for the remainder of the fiscal year and into the next.

20. The Malawi Revenue Authority (MRA) continues to underperform in the area of revenue collection, struggling to meet targets in the context of the economic deceleration. For the period from July to December 2015, the value of domestic revenues was 4 percent below target, with the value of tax revenues being 2.2 percent below target and with underperformance in most tax categories, particularly Value Added Tax (MWK 5.7 billion). The poor performance in the area of revenue collection is not surprising in the context of the current economic environment, which is characterized by weak consumer demand and declines in the levels of business activity. In particular, the poor performance of the agriculture sector has contributed to suppressed disposable incomes, which has significantly reduced the volume of taxable transactions. Efforts to adopt modern techniques of revenue collection, such as through the use of electronic fiscal devices, have met with compliance challenges. To address these challenges, the MRA has conducted sensitization and awareness campaigns ("Receipt Langa") to encourage consumers to demand VAT receipts when making purchases. The value of import taxes has also declined, with the weak consumer demand exacerbated by the depreciation in the value of the Kwacha and by the liberalization of tariffs under the Southern Africa Development Community Free Trade Area agreement. Conversely, the authorities recorded over-performance in the collection of Pay-As-You-Earn (payroll taxes) to a value of MWK 1.6 billion. However, this increase was largely the result of the Government's recruitment of additional teachers and police officers and of adjustments to civil service wages and salaries. An underperformance of 8 percent was recorded in the collection of non-tax revenues due to the poor performance of parastatal enterprises, resulting in a decline in the value of remittances to the Government in the form of dividends.

Figure 3: Government's fiscal deficit has begun to be closed...

Revenue, expenditure and budget deficit, percent of GDP

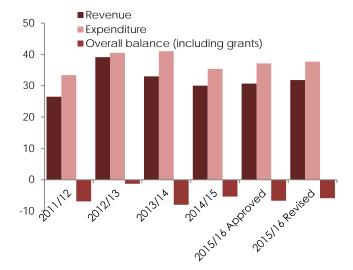
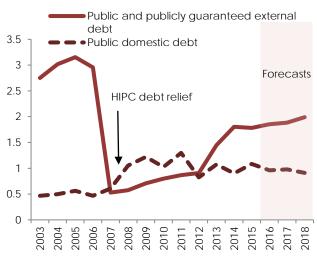


Figure 4: ...leading to slower growth in public sector borrowing

US\$ billions



Source: World Bank staff calculations and estimates based on MoFEPD data

Source: World Bank/IMF staff calculations and estimates based on MoFEPD data

21. Development assistance increasingly comes in the form of "project" grants, rather than "program" or "dedicated" grants. Thus, the share of official development assistance (ODA) that is on the budget has fallen. For the first half of the year, the total value of grants was projected to reach MWK 75 billion, of which MWK 6.97 billion was to consist of program grants; MWK 34.5 billion of dedicated grants; and MK 33.9 billion of project grants. The actual outturn stood at a value of MWK 37 billion, representing an underperformance by 50.6 percent. This was due to the very low value of dedicated grants, which was due to the ongoing abandonment by donors of support for pooled and basket-funded programs under the Government's own management. In terms of the rate of execution, the performance of project grants was also worse than expected, largely as a result of slow implementation leading

to a lower rate of absorption of committed funds. These trends are part of a broader trend in the provision of development assistance to Malawi, with decreasing support for on budget mechanisms (see Box 1).

### Box 1: Malawi is still receiving a large amount of development assistance, but it is increasingly off budget

Over the last seven years, Malawi has received an average of US\$ 964 million per year in official development assistance (ODA), which is equivalent to around 60 dollars per person per year. Inflows grew steadily from FY 08-09 peaking at US\$ 1,275 million in FY 12-13. Since then, levels have declined closer to recent annual averages, with US\$ 932 disbursed in FY14-15.

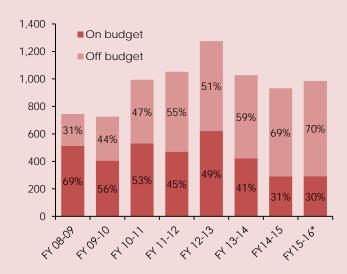
A key change to the structure of Malawi's ODA disbursements is the sharply reduced share that is recorded as being "on-budget". On-budget ODA is currently defined as that which is channeled through Government's own accounting systems, where activities are implemented by Government and where expenditure is approved by Parliament in the annual presentation of financial statements. In contrast ODA which is "off budget" is disbursed and implemented outside of Government systems, such as via non-governmental organizations.

In previous years, a majority of ODA in Malawi was disbursed on budget, with the level as high as 69 percent in FY 08-09. Since then the share that is on budget has declined significantly to just 30 percent in FY15-16 (see Figure 5). This change reflects reduced confidence in the use of Government's public financial management systems following revelations surrounding control weaknesses. However, this change in the share of ODA disbursed on budget is a key reason for elevated fiscal deficits in recent years as Government has struggled to adjust expenditure in line with lower on budget ODA.

During the last two decades, Malawi has been at the forefront of efforts to reduce the transactions costs associated with absorbing ODA through the use of aid instruments such as basket funds, sector wide approaches and pooled mechanisms. Much of these gains have been now been lost, with a majority share of ODA financed expenditures now falling outside the

Figure 5: The share of ODA that is on budget has declined sharply

Annual ODA inflows to Malawi in US\$, on and off budget, selected years



Source: World Bank staff based on data from MoFEPD \*Staff estimate

budget. Thus, a key challenge for Government is to rebuild confidence in the use of its systems such that an increased share of ODA can return to being channeled through national systems. In the longer term, Malawi will need to look beyond ODA to increased domestic resource mobilization and reduced aid dependency for public expenditure.

22. In the context of low levels of revenue collection and expenditure pressures in areas of the budget exposed to foreign exchange movements, the Government made a concerted effort to restrain expenditures. At midyear, the total value of Government expenditure stood at MWK 391 billion, a level significantly lower than the targeted level of MWK 485 billion. The Government exerted these efforts in the areas of both recurrent and development expenditures, with an under target by 5.8 percent and 57.9 percent, respectively. In terms of recurrent expenditure, the total value stood at MWK 337 billion, compared to a target of MWK 358 billion. In terms of specific areas, spending on wages and salaries was roughly in line with the target; interest on debt was slightly lower than target, on account of the restructuring of a portion of domestic debt, with less use of short term instruments and greater use of longer term instruments; fertilizer subsidies through the FISP was significantly lower than target (56 percent) due to delayed deliveries resulting from the delayed finalization of contracts with suppliers as a result of extended negotiations related to pricing issues. Piloted reforms to the costly FISP showed significant promise, easing fiscal pressure to some extent and pointing the way to possible future reforms (see Box 2). Expenditure on pensions and gratuities was also roughly in line with the target. The value of development expenditure was significantly lower than targeted, with actual expenditure standing at MWK 53 billion, against a target of MWK 127.6 billion. Under expenditure in this area was largely due to the slow implementation of projects, particularly donor-financed projects.

23. The Government financed the deficit through foreign and domestic borrowing, with the value of both remaining below the targeted ceiling. The overall balance was lower than the targeted level by a value of MWK 44 billion (44.6 percent). In particular, despite the reduced level of foreign financing, the Government borrowed by less than 92.6 percent of the approved midyear level. The mid-year outturn shows that Government expenditure was within the approved estimates, remaining lower than the mid-year domestic borrowing target by a substantial margin, with the outturn standing at MWK 4.3 billion against a target of MWK 58.1 billion. The targeted level is a key benchmark set by the IMF Extended Credit Facility (ECF) program.

### Box 2: Pilot reforms to the FISP show promise

The Farm Input Subsidy Program (FISP) is implemented by the Government of Malawi and is intended to enhance agricultural productivity. Allocations for this program account for a large share of the agricultural budget. The FISP provides subsidized fertilizer and improved seeds (maize and legumes) for 1.5 million smallholder farmers each year. The program has come to dominate the overall agricultural budget, absorbing approximately 69 percent of the total value of the Ministry of Agriculture, Irrigation and Water Development (MoAlWD)'s financial resources in 2014/15, crowding out other potentially valuable investments in the sector. Given the extremely high cost of this program, it is vital that the Government ensures that its expenditure yields the maximum possible return on investment.

Inefficiencies in the implementation of FISP have led to high costs. This has placed a significant fiscal burden on the Government and resulted in repeated cost overruns; an inefficient tonnage allocation formula (small quantities provided to many contractors) that increases average purchase costs; an inefficient fertilizer delivery mechanism that increases logistical costs; and in recent years, the seasonal depreciation of the Kwacha that increases the cost of imported inputs. The program has also struggled to deliver subsidized fertilizer to farmers on time.

To address these issues, pilot reforms introduced in the 2015/16 growing season aimed to improve efficiency and to produce cost savings. The pilot involved two major interventions: (i) the direct retailing of fertilizer by the private sector to FISP beneficiaries; and (ii) reductions in the subsidy level from 97 percent of the retail price to 80 percent, with the Government issuing fixed value coupons to beneficiaries.

Implementation of these two major reforms had a significant positive impact, resulting in reduced costs and improved efficiency. Private sector firms were granted contracts in nine districts, with these contracts covering the delivery of 23 percent (33,910 MT) of the total fertilizer provided through the scheme. The fertilizer was fully delivered within six weeks, a much shorter time period than through the traditional public sector model. Initial analysis suggests that the pilot private sector retailing model resulted in cost savings to the Government to a value of around MWK 3.9 billion (approximately US\$ 5.1 million). These savings were achieved through lower cost sourcing, distribution and communications. The reduced subsidy levels and increased farmer contributions resulted in cost savings to the Government to a value of about MWK 12.8 billion (approximately US\$ 16.7 million). While the overall budget for FISP still overrun its budgeted allocations, the excess would have been even larger had the pilot reforms not been implemented.

Scaling up this pilot in 2016/17 will create opportunities to further reduce the cost of FISP, providing Government with much needed fiscal space at a time of pressing expenditure needs on food. Increasing the involvement of the private sector in retailing the subsidized items to cover the majority of the FISP would result in further efficiency gains, leaving the public sector responsible for serving only those areas that private sector farm inputs suppliers are unable to reach (such as in remote areas). Further incremental reductions in the level of subsidy would also provide additional space for the Government to implement vitally necessary investments in the areas of social protection, resilience building and agricultural development. However, for the poorest of beneficiaries who simply on-sell their coupons, the FISP in effect operates as a form of cash-transfer. Unless compensating measures are put in place to boost alternative social safety nets, such households may be worse off as a result of reforms to the scheme.

### Careful expenditure prioritization is key for macroeconomic stabilization

24. Revisions to the FY 2015/16 budget framework increased the total projected value of revenues and grants by 3.8 percent. This increase is projected to be largely on account of increases in the value of grants, with domestic revenues expected to remain weak. The Government expects disbursement of additional resources in the second half of the year. It also expects to benefit from the depreciation in the exchange rate in the second half of 215, with the gains to the value of grants provided in foreign currency in Malawi Kwacha terms. In the area of domestic

revenues, there is a seasonal tendency for the value of revenues to increase in the first month of each quarter, as some provisional taxes (such as corporate income tax) are paid on a quarterly basis. In a normal cycle, the value of revenues collected during the second half of the calendar year (July to December) amount to about 51 percent of the total annual value of revenues, mainly because the economy is agro-based, so there is a higher level of disposable income in the post-harvest period. However, payroll taxes tend to be higher in the first half of the calendar year, as annual increments and bonuses tend to be calculated in December.

25. With the declining value of collected revenues, the Government will need to continue to tighten expenditure to restore the fiscal balance. In terms of recurrent expenditure, the most significant revisions relate to the reduced interest for PTA Treasury Notes due to exchange rate gains; reductions in expenditures on generic goods and services, including the restriction of travel to essential services; and upward revisions to the FISP budget as a result of increases to the cost of imported fertilizer as a result of the depreciation in the exchange rate. In terms of development expenditure, revisions have been formulated with reference to the lower-than-anticipated availability of domestically financed projects (for new and/or slow-moving projects).

Table 1: Fiscal accounts
Percentage of GDP

	2012/13	2013/14	2014/15	201	2015/16	
				Budget	Revised	
Revenue and grants	39.1	33.0	30.0	31.4	32.3	
Revenue	24.5	28.0	26.3	27.4	26.9	
Tax Revenue	22.3	24.6	23.2	24.4	24.	
Nontax revenue	2.3	3.3	3.1	3.0	3.	
Grants	14.5	5.0	3.7	4.0	5.	
Budget support grants	6.4	0.4	0.0	0.3	0.	
Project grants	2.9	2.6	2.2	1.5	2.	
Dedicated grants	5.3	2.0	1.4	2.2	2.!	
Expenditure and net lending	40.5	41.0	35.4	38.3	38.	
Recurrent expenditure	31.9	34.7	30.9	28.7	28.	
Wages and salaries	8.0	8.9	9.9	9.4	9.	
Interest payments	2.8	6.2	5.8	5.2	4.	
Domestic	2.4	6.0	5.8	1.0	0.	
Foreign	0.3	0.2	0.4	4.2	4.	
Goods and services	11.9	11.2	7.6	7.7	7.	
Subsidies and other current transfers	8.1	7.9	7.0	6.5	7.	
Fertilizer and seed subsidy	4.3	3.8	2.7	1.7	3.	
Arrears payments	1.0	0.5	0.0	0.0	0.	
Development expenditure	8.6	6.4	4.4	9.2	9.	
Foreign financed	6.0	5.1	3.1	2.1	1.	
Domestically financed	2.6	1.2	1.4	7.2	7.	
Overall balance (including grants)	-1.3	-8.0	-5.4	-6.9	-5.	
Financing	2.5	8.7	5.0	6.9	5.	
Net foreign financing	2.7	2.8	0.2	4.7	4.	
Gross foreign borrowing	3.1	3.4	0.8	5.4	5.	
Budget support loans	0.0	0.9	0.0	1.3	0.	
Project loans	3.1	2.5	0.8	4.1	4.	
Amortization	-0.4	-0.6	-0.6	-0.7	-0.	
Net domestic borrowing	-0.2	5.9	4.8	2.2	1.	
Memorandum items:						
Nominal GDP (MWK billion)	1,208	1,578	1,991	2,429	2,42	

Source: World Bank staff calculations and estimates based on MoFEPD data

26. If implemented in line with estimates, the revised budget will facilitate a modest fiscal consolidation over this fiscal period compared to estimates at the beginning of the year. The FY 2015/16 budget was originally premised on GDP growth of 5.4 percent; an average inflation rate of 16.4 percent; and an exchange rate of 450 Kwacha to the US dollar. Each of these indicators has moved in an adverse direction, putting the authorities under considerable pressure. From the mid-year outturn, the Government appears to be implementing prudent policies to tighten

<sup>&</sup>lt;sup>3</sup> Revised budget, reflecting adjustments made after approval.

<sup>11 «</sup> MAI AWI ECONOMIC MONITOR MAY 2016

expenditure to the extent possible given the challenges created by the economic deceleration; adverse climatic conditions; and the uncertain outlook for external development assistance, all of which are exacerbated by or contribute to poor performance in the area of revenue collection.

27. There remain significant potential downside risks through the remainder of the fiscal year and into the next. These include risks related to underperformance in the collection of domestic revenues; escalations in the cost of the FISP beyond the revised estimate; and seasonal depreciations in the value of the Kwacha, particularly at a point when the Government is required to purchase FISP inputs, resulting in increased import costs. Most significantly, should there be a shortfall in available grant resources to finance food purchases, then Government would come under pressure to purchase imported maize with domestic resources. Without tight control of expenditure and improved revenue collection performance, there is a significant risk that the Government will increase its level of domestic borrowing or allow the value of arrears to increase. Both of these would have significant negative side effects, with risks including exacerbating upward inflationary pressures and crowding out private sector investment. To control these risks, the tight management of public expenditure and the appropriate prioritization of expenditure (should any further within-year reductions be necessary) for the remainder of the fiscal year are vital. Similarly, a coordinated and early response to the food security challenge will be essential.

28. In terms of a breakdown by sector, spending allocations have remained broadly similar over the past two years. The largest proportion of resources is allocated to agriculture (17.5 percent), followed by education (12.4 percent); health (8.8 percent); governance (5.6 percent); and transport (5.0 percent) (see Figure 6). The high proportion allocated to agriculture is almost entirely driven by allocations to FISP. Health and education continue to attract an increasing share, with the continued growth in the number of health workers and teachers being a significant driver of this increase. The prioritization of governance is broadly in line with a short-term policy focus on public financial management reforms. The proportion allocated to transport continues to go up with the increased level of investment in roads. A comparison of the allocations for recurrent and development expenditure indicates that recurrent expenditures continue to constitute a higher proportion than development expenditures.

Figure 6: Budget allocations reflect the dominance of recurrent over development expenditures

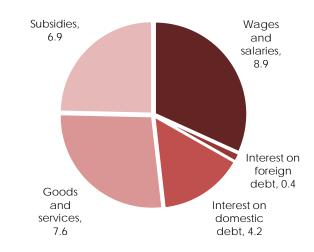
Top five sectoral budget allocations, percentage of total budget, selected years, net of transfers to local councils and subventions

5 Roads, Public Works and 6.1 ■ 2015/16 Revised Transport 3.8 ■ 2015/16 Estimate 5.6 Governance Institutions 6.6 **2014/15** 6.1 10.1 Health 9.3 9.1 12.4 Education, Science and 12.7 Technology 12.8 17.5 Agriculture, Irrigation and 14.8 Water Development 19 6 0 10 20 30

Source: World Bank staff calculations and estimates based on MoFEPD data

## Figure 7: The share of recurrent expenditure on public wages and debt service is just below half

Share of estimated 2015/16 recurrent expenditure, percentage of GDP



 $\it Source$  : World Bank staff calculations and estimates based on MoFEPD data

29. As stated above, the agriculture sector receives the largest allocation of any sector, with allocations to FISP constituting a major portion. Thus, the implementation of two key reforms to this program that resulted in significant cost savings and efficiency gains have had a significant impact on expenditure. In particular, the Government implemented a number of pilot reforms to this program during the FY 2015/16 season (Box 2). Historically, the FISP has been subject to repeated budget overruns. While the 2015/16 scheme also overrun its budget allocation, the over-expenditure was less significant than it would have been without the implementation of the pilot reforms. Contrary to initial expectations, the pilot is now widely viewed as a success, with an increasing level of enthusiasm for scaling up these reforms significantly in the 2016/17.

30. The financing gap continues to be met through long-term, highly concessional foreign project loans, with the Government now striving to control its domestic borrowing. The financing need for FY 2015/16 is estimated at a

value of 5.7 percent of GDP. Of this, the value of foreign financing stands at around 4.2 percent of GDP and domestic financing at 1.0 percent. The difference is met by additional financing derived from the proceeds of the privatization of the Malawi Savings Bank. The foreign financing component consists predominantly of project loans, with the proportion of program loans remaining very low in the absence of budget support. If the value of foreign financing falls below expectations, there is a risk that the Government will be forced to again resort either to increased domestic borrowing or to increased arrears, both of which have potentially damaging side effects.

### Growth in Malawi's public sector debt is now taking place at a more sustainable pace

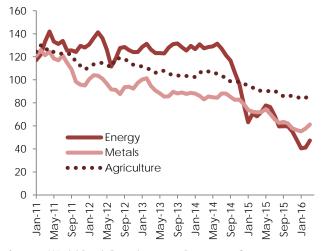
31. Malawi's level of debt has increased significantly over recent years. With this increase, the cost of servicing the debt as a proportion of the Government's total expenditure is returning to close to the level before debt relief was granted in 2006. The total value of public and publicly-guaranteed debt was estimated to reach US\$ 1.78 billion at the end of 2015 (52.5 percent of GDP). The value of public domestic debt (debt held within the country and denominated in Kwacha) was estimated to reach US\$ 1.08 billion (23.9 percent of GDP) (see Figure 3). While the total stock of external debt is higher than the stock of domestic public debt, the cost of servicing external debt is much lower, due to the highly concessional terms on which most of Malawi's foreign debt is contracted. Malawi's debt stock is projected to continue to increase at a moderate pace in future years, due to Government's tightening of its fiscal stance.

### Inflationary pressures remain, but there are some signs of gradual easing

32. Malawi continued to record a high rate of inflation throughout 2015, with an average headline rate of 21.9 percent for the year. This is the fourth year for which Malawi has recorded a rate in the double digit range. Inflationary pressures continued to increase throughout the year, with the year-on-year headline inflation rate for December 2015 standing at 24.9 percent, compared to the figure of 24.2 percent recorded for the same period in the previous year. The main driver of inflationary pressure was the sustained increase in food prices during the second half of the year. The increase in food prices was primarily driven by the poor maize harvest, which resulted in 2.8 million people (17 percent of population) becoming food insecure. The value of the Kwacha depreciated by more than 30 percent during the second half of 2015, which also exerted upward pressure on non-food inflation by driving up the cost of imports.

Figure 8: International commodity prices, particularly energy prices, have stabilized at a new lower level

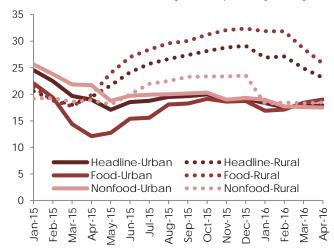
International commodity price indices, 2007-2015, 2010= 100



Source: World Bank Development Prospects Group

Figure 9: A gap has opened up between rural and urban inflation, driven by rising food prices

Headline, food and non-food monthly inflation, percent, year-on-year



Source: World Bank staff based on data from NSO

33. However, there are signs that inflation has begun to gradually ease through early 2016. The monthly year-on-year inflation rate appears to have begun to ease slightly, with the rate declining by 3.9 percent in the period from December 2015 to April 2016, when it reached the figure of 20.9 percent. This decline appears to be due to a decline in consumer demand resulting from the economic deceleration and to the reduction in the level of public sector borrowing, which have led to a fall in the non-food inflation rate. In addition, the decline in international energy prices has at least partially offset the impact of the decline in the value Kwacha on imported inflation (see Figure 8). After a significant increase in food prices during the second half of 2015, the rate of growth for these prices began to stabilize in early 2016, in the post-harvest season. If the decline in the rate of inflation continues, it is likely to boost business and consumer confidence. With the start of the tobacco season and the short-term

stabilization of maize prices in the immediate post-harvest period, the rate of inflation may continue to decline throughout the first half of 2016.

- 34. High food prices have had a particularly significant impact on Malawi's rural population. Food constitutes 61.7 percent of the consumer price basket in rural areas, compared to 33.9 percent in urban areas and with the national average standing at 50.2 percent. Therefore, high rates of food inflation erode purchasing power in rural areas to a far greater extent than in urban areas (see Figure 9). In April 2016, the headline inflation rate for rural areas was 23.1 percent, compared to the rate of 17.9 percent for urban areas. This was driven by a high rate of food inflation of 25.8 percent compared to the urban rate of 19.0 percent. A sustained increase in the food inflation rate continues to erode the incomes of the poor throughout the country, with those in rural areas being predominantly net food buyers.
- 35. The rate of inflation is expected to decline modestly throughout the first half of the year. However, it is likely to resume an upwards path in the second half of the year, with the average annual rate for 2016 projected to reach 20.8 percent. Risks to the general price outlook remain high, with ongoing risks related to food inflation being particularly significant. A further contraction in maize production this year will not only exacerbate food insecurity, it would also exacerbate upward inflationary pressures during the traditional lean season from the latter part of the calendar year. On the positive side, a modest appreciation in the value of the Kwacha in early 2016 may result in a lower level of imported inflation. Overall, in 2016, the rate of inflation is projected to be somewhat lower than in the previous year, although it is likely to remain in the double digit range.

### The Kwacha continues to follow a volatile path

36. The value of the Kwacha continued to depreciate throughout the second half of 2015. With the upward pressure that this placed on the cost of imports, the depreciation exacerbated non-food inflation and increased the cost of Government programs such as FISP, which is heavily dependent on imported inputs. As of December 30, 2015, the value of gross official reserves stood at US\$ 639 million, equivalent to 3.1 months of import cover. Nonetheless, over the same period, the value of the Kwacha depreciated by more than 30 per cent, which exacerbated the decline in already weak levels of business confidence. With Malawi generally experiencing a seasonal depreciation linked to its agricultural cycles, the high level of speculation meant that this depreciation occurred earlier than usual, with importers sourcing and demanding foreign currency earlier in the cycle than usual. The depreciation in the value of the Kwacha took place in the context of a general strengthening of the Dollar, which meant that the decline in the value of the Kwacha was somewhat less significant relative to other key reference currencies, such as the South African Rand, the value of which also depreciated against the Dollar.

Figure 10: Despite higher reserves, fundamentals continue to put pressure on the exchange rate

US\$/Kwacha exchange rate (LHS) and gross official resources in US\$ millions (RHS)

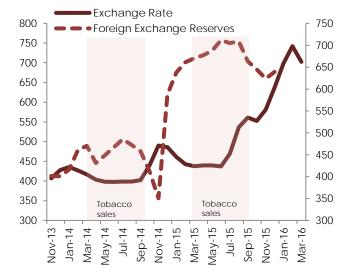
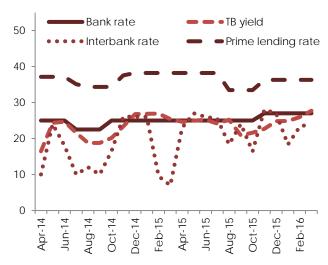


Figure 11: Interest rates remain high due to high inflation

Policy interest rate, treasury bill rate, interbank rate and average prime lending rate, percent



Source: World Bank staff based on RBM data

Source: World Bank staff based on RBM data

37. Following the seasonal cycles observed over recent years, the value of the Kwacha relative to major trading currencies began to appreciate in the early months of 2016. With Malawi's largely agricultural economy, seasonal

factors continue to exert a strong influence on domestic currency movements. The value of the Kwacha tends to depreciate when the demand for imported agricultural inputs such as fertilizer is high, and appreciates when the supply of foreign exchange increases, such as during the post-harvest tobacco sales period, or when the prospect of such an increase is imminent, which drives positive speculation. Thus, the recent appreciation in the value of the Kwacha has occurred in the period prior to the opening of the tobacco season, with at least some of the appreciation attributable to pre-positioning by tobacco buyers as they offload dollars in anticipation of the impact of this season. While this year's appreciation thus the follows the typical pattern, it appears to have begun slightly earlier and to have been somewhat more intense than usual.

38. With multiple factors exerting an influence on the exchange rate, the Kwacha is expected to remain under pressure into the medium term. With Malawi's rate of inflation expected to remain significantly higher than that of the United States, it can also be expected that the value of the Kwacha will continue to decline relative to the Dollar. Other factors driving depreciation include low levels of investment, weak business confidence, and the significant nature of the Government's fiscal deficit and borrowing requirements. In the long term, to minimize the degree of exchange rate volatility, Malawi needs to be able to generate additional sources of export earnings and to reduce the structural deficit that exists on the current account.

### A tight monetary stance has helped to curb inflationary pressures

- 39. In November 2015, the Monetary Policy Committee of the Reserve Bank of Malawi (RBM) raised the policy rate by 2 percentage points, from 25.0 percent to 27.0 percent, as a measure to curb inflation and to ease the pressure on the exchange rate. This was the first revision to the policy rate in more than a year. This tightening of the monetary stance was justified as a means to maintain positive real interest rates and therefore to maintain incentives for holding Kwacha, thus acting to reduce capital flight. In addition, the tightened monetary stance was implemented to exert a disinflationary effect, in the context of the high non-food inflation rate. While the authorities have resorted to tight monetary policies in the past for similar purposes, until recently, the impact of such policies and measures has been muted due to loose fiscal policy. Improved fiscal discipline in the second half of 2015 has helped to ensure a higher level of consistency and a better match between Malawi's current monetary and fiscal stances.
- 40. Following the imposition of restrictions on foreign exchange trading in June 2015, the authorities issued new trading guidelines in March 2016 to relax these restrictions. The new guidelines for authorized dealer banks include a widening of the maximum spread between buying and selling exchange rates from 2 to 3 percent; the valuation of end-of-day foreign exchange positions through the use of the average trade-weighted, end-of-day buying and selling prices for assets and liabilities; the use of end-of-day average selling prices for all own transactions on bank books; and a relaxation of restrictions on both the published opening exchange rates and within-day rates, provided that such changes are published and reported to RBM at all times. The initial guidelines had the unintended effect of increasing the volume of foreign exchange trading conducted through forex bureaus and parallel market activity, and therefore did little to curb speculative activity. So far, the new measures appear to have improved the level of efficiency in the foreign exchange trade.
- 41. Borrowers continue to face prohibitively high lending rates. The average base lending rate at the end of 2015 for loans issued by Malawi's commercial banks stood at 36.29 percent. Few private sector investments are able to generate positive returns with the cost of capital at these levels. However, a reduction in the lending rates is only likely to be possible if Malawi's headline inflation rate stabilizes at lower levels. The achievement of these lower levels of inflation will require the continued implementation of a tight monetary stance to curb non-food inflationary pressures and a coordinated response to the current food crisis to effectively manage food price inflation. It will also require further efforts to reduce the Government's public sector borrowing requirement, with approximately 35 percent of net banking sector credit being utilized to finance Government expenditure at the end of 2015.

### Exports have been mixed, with performance varying across sectors

42. A recovery by Malawi's external sector remains challenging in the context of a continued global economic slowdown; deteriorating commodity prices; and ongoing volatility in exchange rates. Malawi's key trading partners have recently tended to record low levels of growth, with this being particularly significant in the case of South Africa, which is Malawi's largest trade partner, accounting for 70 percent of external trade. Weak demand in South Africa has acted as a drag on Malawi's regional export prospects. The decline in commodity prices has also had a mixed impact. While the average global price for agricultural commodities, Malawi's key growth sector, fell by 12 percent over 2015, like other net oil importers, Malawi has continued to benefit from the sustained decline in oil prices. With crude oil reaching a record low of US\$ 36/barrel in 2015, overall energy prices fell by 39 percent,

offsetting the decline in the price of agriculture commodities. However, the depreciation in the value of the kwacha resulted in increases to the cost of importing key inputs, such as fertilizers and medicines.

- 43. A modest increase in the export value of tobacco failed to offset the weak performance of other traditional crops and the loss of revenue from uranium exports. Thus, the total year-on-year value of exports fell by 6 percent in 2015 to US\$ 1,616 million (see Figure 12). The value of tea and coffee exports also fell due to a decline in average global prices. The closure of uranium mining, due to the sustained low prices resulting in operations becoming unviable, ended export receipts for this commodity.
- 44. While the drought that afflicted Malawi in the 2015/16 growing season had a drastic impact on food production, it does not appear to have had a significant impact on production of the country's key export cash crop, tobacco. The reduced output of maize will necessitate the import of this commodity as a relief measure, which will increase the pressure on the import bill. However, tobacco production has proved resilient, with production estimated to have increased by 3.75 percent relative to the actual sales volume recorded in 2015. However, the sector continues to face serious challenges, with global demand remaining in decline and with local production continuously outpacing demand. The 2016 tobacco season is estimated to result in an access production of 41,600 metric tons, which will have to be absorbed in addition to last season's remaining stock. As such, prices during the early part of the tobacco marketing season have been below those recorded last year. It is expected that revenues generated from tobacco will continue to drift downwards as prices decline in response to developments on the global market and to a level of supply that has not responded significantly to production quotas, despite the fact that an estimated 90 percent of the crop is produced under contract farming arrangements. Regardless, tobacco remains Malawi's key export commodity accounting for almost half of the country's total merchandise exports. The total value of revenues derived from the export of tobacco reached US\$ 649.7 million in 2015, an increase of 8 percent compared to the figure of US\$ 600.8 million recorded in 2014.

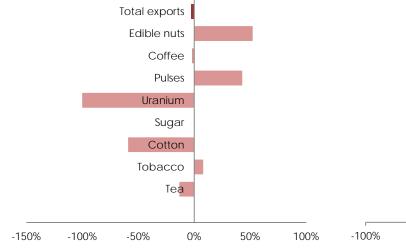
Figure 12: Malawi's exports in 2015 saw a modest decline, but with differing sectoral performance...

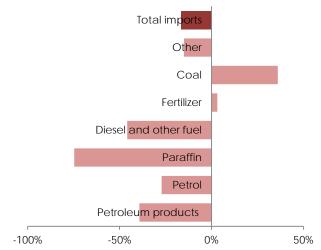
Exports by type, 2015 change from the previous year in US dollar term

Exports by type, 2015 change from the previous year in US dollar terms, percent  $\,$ 

Figure 13: ...and imports contracted across most sectors over the same period

Imports by type, 2015 change from the previous year, US dollar terms, percent  $\,$ 





Source: World Bank staff based on MoFEPD data

Source: World Bank staff based on MoFEPD data

45. However, a strong level of growth in the export of some non-traditional commodities, particularly edible nuts and pulses, was recorded in 2015. This suggests encouraging prospects for future diversification. With the growth in the value of these non-traditional export commodities, edible nuts now appear to have become Malawi's fourth largest export. While the price of most agricultural commodities has declined recently, there has been an increasing demand for specialty products such as macadamia nuts, with corresponding increases in prices. In addition, the crop has proved to be resilient to drought conditions, creating opportunity for risk mitigation in the context of a changing climate. Malawi is now the fifth largest exporter of macadamia nuts following Australia, South Africa, the USA and Kenya. In 2015, the total value of Malawi's export of edible nuts amounted to a figure in excess of US\$ 40.5 million, with macadamia nuts contributing to the most significant proportion of this value. At these levels, edible nuts are now Malawi's fourth most significant export, following tobacco, sugar and tea. In 2016, with the anticipated ongoing global economic deceleration and uneven recovery amongst key trading partners, Malawi's export earnings are expected to be broadly in line with the 2015 performance.

### Lower energy costs have helped to contain the cost of imports

46. In 2015, the total value of Malawi's import bill fell by 5 percent. This was largely the result of a 39.2 percent decline in the bill for the import of petroleum products compared to the previous year. During this period, the total cost of fertilizer imports increased by 3 percent as a result of the continued demand for inputs for the FISP program in the context of a depreciation in the value of the Kwacha. There was also an increased level of demand for coal from Mozambique following the commissioning of the Moatize Coal mine in Tete province, with a subsequent decline in the level of demand for locally produced coal. This was partially due to quality, efficiency considerations and to transport savings involved in purchasing from Tete rather than from local coalfields. The domestic coal sector also suffered as a result of the imposition of import restrictions by Tanzania. As the combined result of these factors, the mining operations in Nkhachira have been suspended. In aggregate, in 2015, the total value of Malawi's merchandise import bill reached the figure of US\$ 1,616 million. With constrained demand, import growth is likely to remain depressed in 2016. However, increased food imports will likely weigh against the current account balance, as Government and donors respond to food security challenges in the country.

### The financial sector faces pressures from a slowing economy

47. While the core indicators that reflect the level of Malawi's banking sector's capital adequacy remain above mandatory minimum levels, these indicators show that a decline in credit quality occurred during the second half of 2015. The overall Tier 1 capital ratio stood at 12.7 percent in September 2015, while the total capital ratio stood at 17.0 percent at the same point. This compares to the figures of 13.5 percent and 18.0 percent recorded in December 2015, with both ratios having been on a declining trend since March 2015 (see Figure 14). The sector continues to record high levels of return on equity, although again, a declining trend is evident, reflecting the deteriorating macroeconomic environment. Both return on assets and return on equity ratios have been on a declining trend since 2013.

Figure 14: Banking sector capital adequacy ratios are declining, but remain above minimum thresholds

Capital adequacy, ratio of Tier 1 and total capital to risk weighted assets, percentage

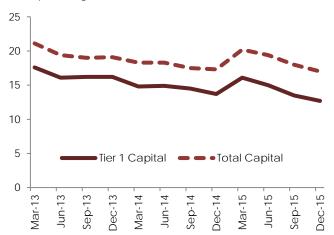
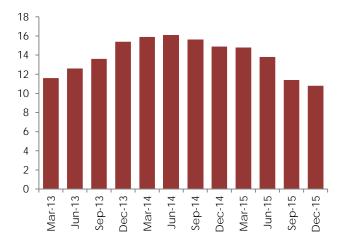


Figure 15: The share of non-performing loans has fallen Ratio of non-performing loans to gross loans, percentage



Source: World Bank staff based on RBM data

Source: World Bank staff based on RBM data

48. The proportion of non-performing loans has fallen, although the credit risk outlook remains uncertain. Non-performing loans (NPLs) fell to 10.8 percent of the total value of gross loans in December 2015, a further reduction from the figure of 11.4 percent recorded in September 2015 (see Figure 15). This continues an overall declining trend since a peak in 2014, when the figure reached 15 percent. The decline in the proportion of NPLs is largely due to the sale of two Government-controlled commercial banks (Malawi Savings Bank and Indebank) and the writing-down of bad debts. The two banks previously accounted for a very high proportion Malawi's financial sector's NPLs, reflecting the governance challenges associated with public sector control of financial institutions. The overall liquidity ratio for Malawi's banking sector declined slightly, from the figure of 60.0 percent recorded in September 2015 to 59.7 percent recorded in December 2015. However, this remains significantly above the minimum regulatory ratio of 30 percent. Having an adequate level of buffer capital is particularly important in the context of the economic deceleration following the successive weather shocks, as it is likely that credit risks will intensify during 2016.

### Private sector confidence remains weak as weather shocks add to investment climate woes

49. With weather shocks extending for two consecutive years and continuing to exert a negative impact on an already underperforming economy, the level of investor confidence remains subdued. Even prior to the advent of the weather shocks, the level of confidence of Malawi's private sector was already low as a result of the extended period of macroeconomic instability in recent years, characterized by high interest rates and inflation rates that undermine the profitability of new investments. The high level of exchange rate volatility has also sapped confidence. Persistent utility supply issues have resulted from the lower water intake levels and declining efficiency of Malawi's key hydro power generating facilities on the Shire River. These issues have also acted as constraints on business, particularly in the manufacturing hub of Blantyre, where the need for back-up systems have added significantly to the cost of doing business. Delayed payments and slow issuance of zero coupon bonds to private sector creditors for the settlement of arrears, together with the high discount rates offered by commercial banks for bond holders experiencing cash flow needs, has also had an impact on businesses that contract with the public sector. Adverse climatic conditions, characterized by the protracted, widespread drought following floods, has exacerbated Malawi's woes at a time when the country desperately needs to see economic recovery. A contraction in Malawi's dominant agricultural sector is likely to further depress demand and investment across the economy. In the context of these mutually exacerbating negative factors, it is absolutely vital that the Government exert every possible effort to lay the foundations for a growth recovery.

### Priority steps to lay the foundations for a growth recovery

50. An economic recovery is possible in 2017 if the Government continues to apply fiscal restraint and if it implements an effective response to the major challenges arising from the protracted period of food insecurity. If the Government effectively addresses the underlying causes of both non-food and food inflation, interest rates, while remaining positive in real terms, may begin to fall to levels that would generate a recovery to business confidence. In turn, this would lead to increased levels of private sector investment and facilitate the creation of a greater number of productive job opportunities. To achieve these goals, policy makers should urgently consider the implementation of the following priority actions:

- Continued tight control of public expenditure: The Government should continue its efforts to exercise tight control over public expenditure throughout the remainder of the 2015/16 fiscal year and into 2016/17. This will involve careful control of expenditure commitments; prudent management of growth in the public sector wage bill; and strict enforcement of budget ceilings across all MDAs to avoid expenditure overruns. Given the pressing need for food purchases, Government may need to undertake critical reallocations with the 2016/17 budget to prioritize food purchases over other needs. Maintaining fiscal discipline will also be partially dependent on the timely receipt of additional financing from development partners to support food purchases.
- Continued tight monetary stance and the maintenance of positive real interest rates: The Government should continue to implement a tight monetary stance and measures to maintain positive real interest rates. It should be emphasized that interest rates will only begin to decline to levels that will allow for restored growth in private sector investment once the underlying drivers of non-food and food prices inflation have been addressed.
- Increased emphasis on development investments rather than recurrent expenditure: The Government should implement reforms to increase its fiscal space and to rebalance public expenditure away from recurrent expenditure and towards development investments. In particular, reforms to the FISP offer excellent potential to free up public resources for other, possibly more productive uses. Creating such fiscal space is necessary to enable the Government to invest in building the foundations to generate increased growth and resilience into the medium term future.

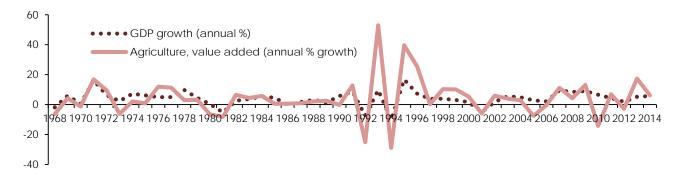
### 2. SPECIAL TOPIC: INVESTING IN AGRICULTURAL RESILIENCE

Drought and other adverse climatic events in the 2015-16 agricultural season have had a drastic impact on Malawi's agricultural sector. Agriculture is of critical importance to Malawi's economy, serving as a source of food supply, incomes, employment, foreign exchange and Government revenue. Thus, risks affecting the agricultural sector have a far-reaching impact on the overall economy. With the very high levels of food insecurity resulting from shocks to the agricultural sector, not only do they result in a decline in the Government's revenues, they also require significant expenditure on emergency coping mechanisms. This has severely limited the Government's fiscal space and diverted resources that could have been used for long-term investments to build resilience. While the Government is strongly focused on the achievement of food security, the recurrent shocks to the agricultural sector mean that it has often had to focus on coping mechanisms and emergency responses, rather than on building resilience that would mitigate the risks affecting the agricultural sector. This special topic draws from the World Bank's Agricultural Sector Risk and Solutions Assessments (2014 and 2015), which were conducted in close collaboration with the Ministry of Agriculture, Irrigation, and Water Development.

### Malawi's agricultural sector is highly vulnerable to risks

- 51. The 2015/16 season has been characterized by extremely unfavorable climatic conditions that affected harvests, with dry spells and uneven rainfall patterns around the country. With the price of maize reaching record levels as a result, the number of people requiring food aid is expected to rise well above the 2.8 million who were provided with food aid in 2014/15. Given expectations of increased frequency of weather shocks, the proportion of the population suffering food insecurity will continue to remain high.
- **52.** The agricultural sector is central to Malawi's economy. It contributes to around a third of GDP and three quarters of the total value of national exports. It is also the country's principal source of employment. In 2015, around 76 percent of Malawi's population derived their livelihoods from agricultural activities, with more than half of those employed in the sector being women. The sector also plays a vital role in household food security.
- 53. While the sector contributes to the majority of Malawi's exports, the extent of value-added agriculture is limited. The country's most significant agricultural commodities are maize, cassava, potato, peas, beans, rice, groundnuts, bananas, tobacco, and sugar, which together account for approximately 80 percent of Malawi's agricultural production value. The livestock sector is relatively small, accounting for around 10 percent of agricultural production value. While maize is by far the dominant food crop, accounting for more than 50 percent of the average daily calorie intake in Malawi, tobacco, sugar, tea and cotton are more important as export commodities, accounting for 67 percent of the total value of national exports of goods.
- 54. In recognition of the central role of agriculture in the economy, the Government allocates a significant proportion of budgetary resources to the agricultural sector. In recent years, in line with agreed upon targets under the Comprehensive Africa Agriculture Development Programme (CAADP), the Government has committed to allocating 10 percent its budget to support the sector. At these levels, the total average annual value of budgetary resources allocated to support the sector stands at around US\$ 250 million. Most of the expenditures have gone to input support, in particular for maize production, but also for other commodities such as beans and cotton in certain years. Improved food security is one of the principal objectives of Malawi's Agricultural Sector Wide Approach (ASWAP, 2010) and the Government's stated objective of 6 percent annual growth for the sector.

Figure 16: Malawi's growth in GDP closely follows growth in agriculture



Source: World Development Indicators (2016)

### Box 3: El Niño, La Niña and what they mean for Malawi

Malawi's climate is affected by several different teleconnections. Chief among them is El Niño/La Niña or ENSO (El Niño-Southern Oscillation). El Niño is a weather phenomenon that is associated with warmer ocean temperatures and changing air pressure in the central and eastern Pacific, while La Niña causes cooler temperatures in the same regions and changing air pressure in the eastern and western Pacific. Both have a significant impact on global temperatures and precipitation patterns in the period in which the events occur.

El Niño events are strongly connected with drought in Malawi, while La Niña is associated with years of unusually high rainfall. If there is an El Niño event, there is an 80 to 90 percent likelihood that Malawi will experience a significant drought in the subsequent growing season. In addition, ENSO events change Malawi's climate by causing changes in the prevailing wind patterns.

55. Despite the high level of Government support, the agricultural sector is highly vulnerable to adverse weather events, with consequences for the whole economy. Over the past decades, Malawi has been struck by numerous severe droughts, causing spikes in food insecurity and frequently creating the need for humanitarian aid.<sup>4</sup> Due to the significance of the agricultural sector to Malawi's overall economy, the rate of growth that the sector records correlates closely with the overall rate of growth of GDP. Thus, declines in agricultural growth can have a dramatic negative impact on the entire economy. As Figure 16 shows, the sector recorded a number of instances of negative rates of growth during the period from 1992 to 2010, with these having a direct impact on overall GDP growth.

### Box 4: Different risks and the methodology for estimating the value of agricultural losses

Risks differ from constraints and trends in that they unpredictable and that they are not a constant in the regular environment in which actors operate. The World Bank's risk assessment methodology distinguishes between three types of risks: production risks, market risks, and enabling environment risks (see Figure 17). These risks can be either man-made or non-man-made, and exogenous (caused by external factors) or endogenous (caused by domestic factors). Risks are also often interlinked. For example, production risks often cause price fluctuations due to production volatility, while erratic policy changes may cause the exchange rate to fluctuate. In order to effectively manage risks, it is therefore important to identify the root cause of the risk.

Figure 17: Three typologies of risk

# Production risks - Weather events - Pests and diseases - Bushfires

# Market risks

- Price volatility
- Exchange rate volatility
- Interest rate volatility
- Counterparty default

### **Enabling environment risks**



- Conflict/instability
- Erratic policy changes
- Erratic trade restrictions

It is important to know the value of risk impacts in order to estimate the benefits from investing in risk management. For this analysis, the following method was applied to calculate the value of systemic production losses in a particular year: (i) a historical linear trend line for yields of each crop was constructed; (ii) a second linear trend line was drawn, representing one-third of the standard deviation of the crop yields; (iii) years were identified as loss years if actual yields were below the second linear trend line; and: (iv) production losses were calculated based on the difference between the predicted value (the original trend line) and actual yields.

<sup>&</sup>lt;sup>4</sup> The most devastating drought in past decades occurred in 2005 when 40 percent of the population was in immediate need of food aid as a result of the poor harvest that year.

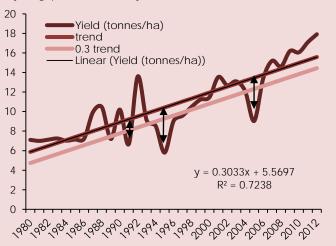
Losses were summed and divided by the total number of years examined in order to determine the average annual loss rate for a particular crop. This figure was then converted into value terms using the producer price for the crop. As producer prices are in local currency, the value is expressed in U.S. dollars using the average

exchange rate. Figure 18 shows an example of this procedure.

Estimating the costs of market risks is more complicated, and so it is more useful to assess market volatility. For price risks, the cost of the fluctuations will depend on where the actor is in the supply chain and the timing of the price change. In the short run, consumers would benefit from a drop in prices, while producers would not, especially not in the immediate post-harvest period in an environment with limited on-farm storage capacity. On the other hand, a trader may benefit from price increases if they buy the commodity prior to the hike and have the capacity to store it until prices increase. The same can be the case for a processor, although this also depends on how retail markets move relative to the primary commodity market. Therefore, the risk assessment methodology uses the coefficient variation (CV) to understand price volatility that goes beyond that of regular seasonal

# Figure 18: Methodology for estimating agricultural production losses

Tons per hectare, selected years, production losses are represented by the gap between actual yields and the linear trend line



Source: World Bank staff calculations and estimates

fluctuations, thereby posing a problem for predictability of investments and the business environment.

Source: World Bank (2016c)

**56.** Droughts, pests and diseases are the most significant production risks, especially for food crops. Droughts have significant impacts both on the economy and on food security. The damaging impact of pests and diseases is also significant, but the level of risk is influenced by domestic agricultural practices to a greater degree. The risks may also be interlinked, with the impacts of pests and diseases at times being exacerbated by adverse weather events. Erratic rainfall and hailstorms are frequent, but have a relatively moderate impact. Floods are also a frequent occurrence in Malawi. However, while floods can have a significant humanitarian impact and impact on infrastructure, they have a more limited impact on the agricultural sector and thus on the overall economy. Even so, in 2015, more than a million people were directly or indirectly affected by floods, with these floods causing losses to crops and livestock to a value of approximately US\$ 79 million, or about 1.02 percent of the total output of the sector, or 0.5 percent of the total value of GDP.

57. Price volatility is an important market risk for Malawi's agricultural sector, particularly affecting key crops such as maize, tobacco, and cotton. The causes of this volatility vary between the crops. The price of cotton fluctuates with variations in global market prices, while the prices of tobacco and maize are mainly determined by domestic market factors. The volatility in maize prices, apart from the usual seasonal volatility (characterized by a decline in prices in the immediate post-harvest season when supply is abundant and higher prices when supplies are more limited) is largely the result of enabling environmental risks resulting from unpredictable domestic market interventions and export policies.

58. Risks affecting the agricultural sector reinforce poverty traps, with those involved in the sector experiencing cycles of "shock-recovery-shock" that result in low returns on investments in productive assets. A producer who lives on the margin in a normal year will have very limited reserves to draw upon in the advent of shocks, with any surpluses that could have been used to invest in productive assets being used for survival purposes until the next season. Unless the risks affecting the agricultural sector are appropriately managed, there is little incentive to invest in agriculture. Even in the case of producers with higher margins, the high level of volatility affecting the agriculture sector act as a disincentive against investment, due to unpredictable returns. This leaves farmers stuck in a low level equilibrium with low productivity and high vulnerability.

### Risks have far-reaching effects on economic and poverty outcomes

59. The impacts of risks on Malawi's agricultural sector can be devastating. In the period from 1980 to 2012, the average annual value of losses resulting from such shocks on major crops amounted to US\$ 149 million, or 4.3 percent of the average gross agricultural output. This is a significantly higher level of loss than experienced by many other economies in the region<sup>5</sup>. While the average level of loss is useful to understand the aggregate costs of production risks, this figure provides no indication of the catastrophic impact that specific occurrences can have on a significant proportion of the population at the time the shocks occur. Risks affecting the agricultural sector impact food security at the national and household levels; they have major fiscal impact; they reduce the availability of foreign exchange; and they have a generally overall destabilizing effect on the macro economy. As a result of the 2001 drought, Malawi's agricultural sector suffered losses to a value of approximately US\$ 161 million, or 4.3 percent of total agricultural production value. In 2005, droughts resulted in losses to a value of nearly US\$ 900 million, 24 percent of total agricultural production value (based on the 2006–08 average). In the 2014-15 season, the impact of floods in the southern and central parts of the country resulted in losses to the agricultural sector of US\$ 68 million.

**60.** Certain crops, particularly maize, potato, and tobacco, are more affected by risks than others (see Figure 19). The scope of the losses is roughly proportionate to the importance of the crop to the sector in terms of value. However, historical trends show that the frequency of losses in the tobacco and tea subsectors is higher, meaning that farmers involved in the production of these crops are exposed to shocks to a greater degree. Tobacco and tea are also relatively much more significant as export commodities than the other crops. Thus, losses in these sectors may have a multiplier effect on losses in terms of export revenues, depending on the extent of value added processes between production and export.

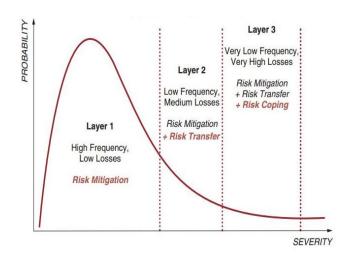
Figure 19: The frequency and value of production losses is high in Malawi

Losses per crop in US\$ million, selected years, bubble size represents relative size of crop

1800 Aggregate losses per crop (US\$ 1600 Maize 1400 1200 1000 Potatoes 800 Tobacco 600 Pigeon Sugar 400 Groundnuts Cane Peas Dry Beans 200 Paddy Tea Rice 0 Cotton 0.4 0.6 -200 Frequency of Losses (annual probability)

Figure 20: Risk management through a layered approach

Diagram



Source: World Bank staff based on MoAIFS data

Source: World Bank staff

### Different approaches to agricultural risk management

**61.** A well-designed risk management strategy usually involves a combination of risk-mitigation, risk-transfer, and risk-coping instruments. *Risk mitigation* refers to actions taken to eliminate or reduce the frequency of negative events or to reduce the severity of the losses resulting from these events (for example, water-draining infrastructure, crop diversification, extension). *Risk transfer* refers to the transfer of risks to a willing third party at a cost (for example, insurance, re-insurance, financial hedging tools). *Risk-coping* refers to actions that enable those suffering losses caused by a risk event to manage the impact of these losses (for example, Government assistance to farmers, food

<sup>&</sup>lt;sup>5</sup> For example, in the period from 1995 to 2012, Rwanda experienced average annual losses resulting from similar shocks to a value of only US\$ 65 million, or 2.2 percent of gross agricultural output. For further country comparators, see <a href="https://www.agriskmanagementforum.org">www.agriskmanagementforum.org</a> for more information.

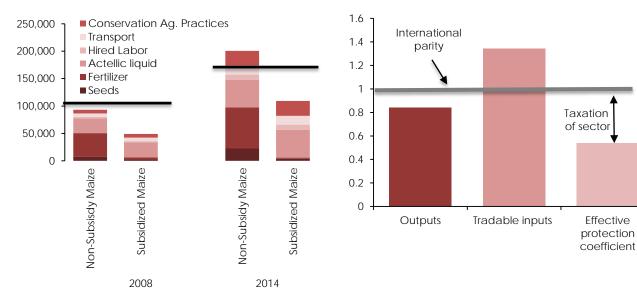
aid, social safety nets). How instruments in these categories are applied to address a particular risk may depend on the probability of the risk and on the potential severity of its impact (see Figure 20).

- **62.** Ideally, risk management should mitigate the impacts of the negative event to the fullest extent possible. In many cases, investment in risk mitigation measures may have a range of positive impacts beyond merely mitigating against the risk of the negative impact of an event. These investments may promote general improvements to productivity and to environmental management. In the long term, these investments can also enable farmers to become more adaptive to the future impacts of climate change. Similarly, many measures intended to mitigate market risks are related to improving transparency and increasing the availability of information related to prices, production, quality, and trade, which may well have a positive impact on the business climate, quite apart from playing a role in the mitigation of risk.
- 63. The significant extent to which risks impact Malawi's agricultural production is largely the result of the low level of on-farm adoption of risk-management practices and technologies. Given the impact of risks such as drought and pests and diseases on production, increasing producers' capacity to mitigate the associated risks at the farm level is crucial to reducing losses and increasing the overall resilience of the agricultural sector. In fact, with the support of donors, the Government has already made substantial investments in risk mitigation activities, including the development of irrigation facilities, the promotion of conservation agriculture, research, and improvements to extension services. However, efforts to promote the use of improved practices and technologies have not yet produced broad, sustained results. The degree to which new technologies and practices are adopted depends on successful efforts to transfer knowledge, on individual preferences, and on the degree to which farmers believe that they will profit from increased investments.
- **64.** Farmers' inability to market crops effectively acts as a major constraint on the implementation of risk mitigation measures. While some farmers have benefited from investments in risk mitigation measures, many poor households struggle to make the transition from subsistence-level production to commercial farming. Limited access to organized markets decreases farmers' ability to generate profits, leaving them vulnerable to exploitation by traders and intermediaries. Poor coordination between relief programs and development programs can also distort the market for improved inputs for risk mitigation. For instance, when emergency inputs are provided without charge to communities, this undermines farmer incentives to participate in seed multiplication schemes.

Figure 21: Farm budgets show that producing maize has become unprofitable without subsidized inputs

Production costs and gross revenue, MWK, 2008 and 2014

Figure 22: Snapshot of the cost of policies to the sector Ratio of effective protection in Malawi's agricultural sector



Source: World Bank staff based on MoAIWD data and interviews

Source: World Bank staff based on MoAIWD data

65. Farm budgets show that in the case of maize production, input prices have risen more than output prices, providing little incentive for farmers to invest in more productive inputs. For example, since 2008 nominal prices for beans and groundnuts have increased significantly, roughly tripling in the case of both crops. While maize prices also increased over the same period, this increase did not match the increase in the nominal price of inputs,

resulting in a decline in gross income. Figure 21 shows the relationship between the market price of maize (depicted by the black line) and the subsidized and unsubsidized price of inputs in 2008 and 2014.

66. The low level of profitability of maize production impacts incentives to produce marketed maize as well as the production of other crops. Gross income calculations indicate that farmers have little incentive to invest in maize production for the market, with other crops offering significantly better potential to generate profits. However, a large proportion of smallholders continue to prioritize the production of maize, with the output primarily intended to meet their own household needs (subsistence farming). Largescale input subsidies towards maize production have also dulled the incentives for farmers to switch production to higher return activities. The tendency of smallholders to prioritize the production of maize as a household-level food security measure has a significant impact on the availability of land for other crops, thereby acting as a constraint on the diversification of the sector and keeping farmers average income levels low.

### Box 5: Improving productivity for female farmers in Malawi

Over half of the farmers in Malawi (59 percent) are women. However, on average, Malawi's female farmers have smaller land lots and are less productive (by 28 percent on average) compared to their male counterparts. Given the relatively low level of productivity of female farmers, ensuring their inclusion is important to improving the resilience of the agricultural sector to risks.

The low level of productivity of female farmers is not only problematic for the farmers themselves, but it has a significant cost for Malawi's economy. A study by UN Women et al (2015) shows that if the level of productivity of Malawi's women farmers increased to the same level as male farmers, this would add an additional US\$ 100 million per year to the value of the country's agricultural production. This can be compared with US\$ 105 million in Tanzania and US\$ 67 million in Uganda. Closing the gender gap in agriculture in Malawi would mean increasing annual output with 7.3 percent or 6.3 percent of agricultural GDP (1.85 percent of total GDP, including multiplier effects), which is significantly higher than for comparable countries. Estimates suggest that this would result in around 240,000 people rising out of poverty in Malawi.

Table 2: Factors explaining why the productivity of female farmers is lower

Determinants as a % of the gap, in value terms and as a % of GDP

Determinant	Malawi			
<del>-</del>	% of the In terms		% of GDP	
	gap	gap of GDP		
	(US\$ m)			
Quantity of male	45.2	45.1	0.84	
family labor per				
household				
High-value crops	28.4	28.4	0.53	
Agricultural	17.8	17.7	0.33	
implements				
Pesticide use	1.0	1.0	0.02	
Inorganic fertilizer	5.3	5.3	0.10	
use				
Wealth index	3.3	3.3	0.06	

Structural factors in the agricultural sector explain the majority of the gender gap, with these factors including access to male labor, gender-divided production systems, and access to inputs. Thus, it is important to ensure that agricultural policies aimed at decreasing risks in the sector and increasing the uptake of risk mitigating practices are gender-informed and address structural impediments to equal participation in the sector. Another factor is education. A comparison of Malawi's male and female farmers shows that in general, the women are less well educated.

Source: UN Women et al (2015)

67. Limited access to knowledge and inadequate communication channels to support services constrain the sustained adoption of alternative crops and of improved farming practices. Many smallholders have been introduced to new technologies and practices through donor-financed projects, with this resulting in a certain degree of uptake. However, it has often been noted that farmers return to their previous practices after the project closes. There are a range of reasons for this disadoption, including the cessation of direct incentives, lack of access to inputs, mechanical breakdowns, dissatisfaction with yield results, and gender disparities in financial decision-making. However, the limited level of access by farmers to reliable extension and advisory services exacerbates

<sup>&</sup>lt;sup>6</sup> One example is the inadequate response to pest and disease threats. In many cases, initial early detection practices appeared to function as planned, but follow-through steps to manage outbreaks and prevent full-blown epidemics were not carried out. These failures have been largely due to inappropriate advice from extension officers, delays in obtaining needed inputs, and communication breakdowns.

all these issues and is an important underlying cause. Focus group discussions with farmers reveal system-wide deficits in knowledge, resources, and intra-agency communication.

### Breaking the vicious cycle

68. The lack of a comprehensive approach to managing risks continues to result in major economic losses and humanitarian crises. Instead of developing such an approach, the Government has relied on reactive emergency assistance and expensive coping mechanisms. In turn, the management of these coping mechanisms has led to disincentives to invest in on-farm risk management. In particular, untimely market interventions lead to a high level of price volatility, reinforcing farmers' dependency on subsidized inputs to achieve profitability. In addition, existing trade policies also impose high costs on the agricultural sector.

69. Low elasticity of demand for maize also contributes to price instability, with even small changes in supply levels generally leading to significant price fluctuations. Recent data show that at the retail level, maize prices are highly volatile. This can be demonstrated in terms of the coefficient of variation (CV), a measure of spread that describes the amount of variability relative to the mean. The CV for average monthly maize prices in Malawi stands at 62 percent for the period from 2007 to 2014. This compares with the figure of 36 percent recorded for the Sub-Saharan Africa region as a whole over the same period, and the figure of only 24 percent recorded in neighboring Zambia. Restrictions on the trade of maize further exacerbate output variation, leading to a high degree of price volatility and price changes in retail markets that are transmitted back to farm-gate prices.

Table 3: Maize price variations are relatively high in Malawi but equal across the country

Coefficient of variation, average for 2007-14, selected districts

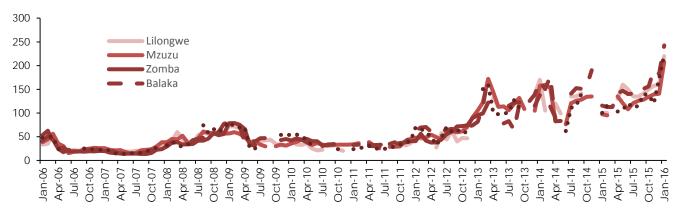
	Liwonde (deficit district-South)	Lilongwe (deficit district- Central)	Lizulu (surplus district- Central)	Mzimba (surplus district-North)	Mzuzu (surplus district-North)	Malawi, national average
Coefficient of variation	64%	52%	65%	61%	62%	62%

Source: FAO/GIEWS (2014)

70. In spite of Malawi's high level of maize price volatility, the level of volatility between different regions within the country is quite similar. The CV ranges from 52 percent in Lilongwe to 64 percent in Liwonde, including both surplus and deficit areas and including both areas in which a surplus of production was recorded and those in which a deficit was recorded (see Figure 23Error! Reference source not found.). This may indicate that the marketing system is able to efficiently move stocks from areas recording a production surplus to those recording a deficit in most months of the year.

Figure 23: Monthly maize price volatility in Lilongwe, Blantyre, Mzuzu, and Zomba

Monthly maize prices in nominal terms, 2005-16, selected districts



Source: FEWSNET (2016)

71. Current agricultural policies, including policies related to the provision of subsidies for inputs, export bans, and taxes on imported inputs, have resulted in market distortions and reduced the potential to generate profits through private investment. Analysis of maize yields and of market prices for inputs and outputs show that these policies have had a number of detrimental impacts. The analysis shows that these policies have resulted in a decline in the value of the maize sector's output revenues of 16 percent and an increase to the price of inputs of 34 percent. This

effectively means that maize producers are in effect being taxed, even after the impact of the FISP subsidy is taken into account (see Figure 22).

### Box 6: Estimating the impact of export bans on maize and soya in Malawi

Since the early 2000s, the Government has imposed export bans to control the flow of trade of maize and soya. The Government has justified these bans on different grounds in the case of each crop. In the case of maize, the bans were justified in terms of concerns related to food security. In the case of soya, the bans were justified in terms of the need to protect the emerging oil processing and poultry producing industries. Maize exports were banned in the period from July 2005 to January 2007; again in the period from April 2008 to July 2009; and yet again since December 2011 to the present. Soya exports were banned in the period from June to July 2010; again in the period from June to October 2011; and yet again in the period from March to September 2012. In September 2013, the Government rescinded the explicit export ban on soya, but since late 2015, it has given consideration to other measures to deter the export of this commodity, including imposition of an export levy and the promulgation of a directive that all soya exports must processed through a single trading company.

These export bans have not generally achieved their stated goals. In spite of the maize export bans, there have been regular shortfalls in the availability of this commodity in the lean season. Nor has a ban on exports resulted in lower domestic maize prices relative to prices in neighboring countries. In the 73 months that export bans on maize have been in place, from May 2004 to December 2014, the price in Malawi fell below export parity on only seven occasions. This suggests that the maize export ban serves little functional purpose, since the fact that domestic prices were relatively higher than regional prices would have deterred commercial exports for almost the entire time the export ban was in place.

Furthermore, the period during which maize export bans were imposed coincides with the periods during which the level of volatility in domestic markets was relatively higher compared to the level in regional markets. Except in the case of Harare, Malawi's markets exhibited the highest degree of maize price volatility in the region in the period from 2004 to 2015. Similarly, although the ban on the export of soya was intended to ensure that processers had access to lower priced soya, the periods during which the bans were imposed actually coincide with periods during which domestic prices were relatively higher and more volatile than in regional markets.

In addition, export bans have economy-wide implications. Computable general equilibrium analysis shows that while maize export bans result in a temporary increase in the availability of maize, the policy becomes self-defeating in the long run as it reduces incentives to produce maize and thus constrains supply, which has an upward impact on prices and threatens food security in the longer term.

If export bans are failing to achieve their goals, what alternative measures may facilitate the achievement of food security and value addition in Malawi? In the case of soya, the evidence suggests that the Government should simply stay the course. Over the past three years, the Government has abandoned soya export bans in favor of policies to foster an environment conducive to free trade. Malawi's farmers have responded to these measures positively. In the period following the lifting of the bans, from the 2012/13 planting season to the 2015/16 planting season, the extent of land allocated for the cultivation of soya increased by 34 percent. This compares to only modest increases in the extent of land allocated for the cultivation of maize (1 percent) and groundnuts (2 percent) over the same time period.

In the case of maize, policymakers may look to identify and implement policies that encourage private sector activity in the sector, rather than those that actively discourage it, as at present. According to a number of Malawi's leading commercial farmers, unpredictable Government interventions and volatile prices are the major deterrents to their increasing investments in maize production. Increased commercial production of maize would result in prices becoming less seasonal and more predictable, benefiting producers, consumers, and processors alike.

Source: IFPRI (2016)

72. The Government's various attempts to facilitate the achievement of food security through interventions have resulted in higher costs and significant losses. As is the case with the private sector, the Government should strive to manage risk through investments in mitigation measures that decrease losses and limit the need for ex-post coping mechanisms (see Figure 24). While there will always be a need for coping mechanisms to manage high-impact shocks, these should be designed and financially prepared ex-ante. While the use of risk transfer instruments, including insurance, is an option, these instruments will probably only become feasible when the level of risk is reduced, as otherwise the premiums would be prohibitively expensive.

73. In Malawi, the level of public investment in risk mitigation systems is low, resulting in a high level of public expenditure on coping mechanisms. As this special topic has demonstrated, these mechanisms exacerbate price volatility and create disincentives for private investment. Figure 24 gives an overview of the cost of both losses resulting from uncontrolled risks and of risk mitigation measures in Malawi. The cost of risk mitigation measures is calculated to include expenditures on activities that could potentially reduce the impacts of identified risks (even though research and extension are currently geared toward general productivity-enhancing practices rather than risk mitigation). The figure presented does not factor in off-budget donor expenditure on either mitigation or coping measures. The figure clearly shows that expenditure on risk management is heavily biased towards coping mechanisms rather than risk mitigation measures. The reallocation of funds to risk mitigation measures could generate significant savings by preventing losses from uncontrolled risks and by reducing the level of expenditure on coping measures.

Figure 24: Ideal risk management, investments and losses...

Share of ideal agricultural risk management investments, US\$ millions7

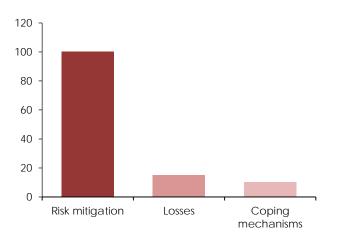
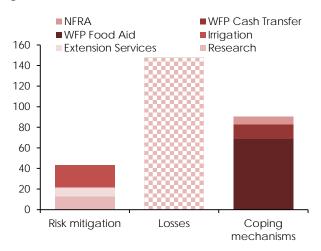


Figure 25: ...versus the current situation in Malawi Actual distribution of annual investments in Malawi's food and agricultural sector, US\$ millions



Source: World Bank (2013)

Source: World Bank (2013)

74. As stated previously, on average, the Government allocates 10 percent of its budgetary resources to the agricultural sector. Despite this high level of expenditure, uncontrolled risks still result in significant losses to the sector. As a result, a significant level of financial resources has to be allocated for coping mechanisms. In addition, a large number of policy interventions cause exacerbate distortions. The question is: Why does this situation prevail?

75. A World Bank assessment of existing agricultural information systems shows that a key factor in the limited effectiveness of agricultural policies and public spending is due to gaps in data collection, in the accuracy of agricultural statistics, and in the limited availability and poor quality of information systems. The lack of data and other information prevent effective monitoring and evaluation of policy, programs, and spending. Well-designed agricultural policies are critical to incentivizing investments at the farm level and to enabling functioning markets. Currently, Malawi's agricultural information systems do not provide comprehensive coverage, with poor data collection and analysis. There is also no institutionalized process to conduct evaluations and re-assessments of major programs. An M&E system to effectively evaluate agricultural policy should be directly related to clearly defined baseline data and measurable program targets built on quantified indicators that are linked to program budgets. With the current lack of such a system, there is a lack of responsiveness with agricultural policy, resulting in poor outcomes for the sector.

**76.** Better policy formulation requires alignment with a long-term strategic framework and a robust M&E framework. These frameworks would facilitate feedback between policy goals, program decisions, and results on the ground, creating an environment that enables dynamic, evidence-based policymaking.

77. Finally, the assessment also revealed gaps and inconsistencies in agricultural policy that need to be addressed in order to implement an effective risk management strategy. A number of existing agriculture sub-sector policies are based on outdated policy documents and outdated regulations, with the lack of appropriate regulations exacerbating an uncertain investment climate.

<sup>&</sup>lt;sup>7</sup> Note: mitigation is calculated using an annual average of Government expenditures from 2008-2012. Losses are an annual average from 1980-2012. Coping is an annual average of NFRA expenses to the WFP, DODMA, and ADMARC, as well as the amount spent in 2014 (the only year for which information was available) for WFP food aid and cash transfer expenses.

### An agenda for building agricultural resilience in Malawi

78. The successful implementation of sustainable risk management measures requires the provision of positive incentives. This would involve the implementation of consistent food security and productivity policies that are based on evolving evidence from the field. Without comprehensive action at the institutional level to improve the formulation and implementation of policy, private sector stakeholders, particularly small-scale farmers, are unlikely to profit from or invest in the risk management measures necessary to decrease the impacts of adverse events, such as droughts, pests and diseases. While scaling up risk management measures at the farm level is likely to have positive effects on productivity and competitiveness at a broader level, such initiatives will only be successful if an environment that incentivizes farmers to make the necessary investments is in place. Therefore, it is necessary to develop a risk management system through a holistic sector approach that acknowledges that there is a synergistic relationship between improvements to risk management and economic growth, with the achievement of food security also dependent on the effectiveness of related policies.

79. To improve the level of resilience of Malawi's agricultural sector to shocks and adverse events, policymakers should give consideration to reforms in three main areas:

- Increase the level of on-farm adoption of risk management measures including more climate-resilient methods to improve production risk mitigation;
- Improve coordination between the agencies responsible for marketing maize and the agencies responsible for risk coping interventions to reduce maize price distortions in the sector; and,
- Strengthen agricultural information and M&E systems to facilitate more responsive agricultural risk management policy-making processes.
- 80. Enabling on-farm adoption of risk management measures will require better access to sustained extension and advisory services and these services should move away from a government-client relationship model. This will require both closer partnerships with private sector players, including greater use of contract farming arrangements where extension services are embedded in a contractual relationship between buyer and seller; increased coordination with non-state sectors who provide extension services; and a shift in the focus of agricultural public expenditure away from input support. In addition, a low-cost measure could involve the development of a gender-sensitized Good Agricultural Practices (GAPs) manual to guide public and private extension service workers. A manual of this sort may go some way towards addressing existing knowledge and skills gaps in Malawi's national extension system and to ensure consistency in the provision of advice between service providers.
- 81. In addition, the reach of extension services can be scaled up through the increased use of peer-based farmer groups to promote local good practices. In the past, the experience with lead farmers has been mixed in Malawi. Therefore, a best practices guide for implementing the lead farmer extension approach can be developed, drawing from examples of good practice in Malawi and from other countries. Extension approaches that incorporate performance-based pay could also be piloted. Finally, the development of agricultural extension messages could involve input from smallholder farmers related to program format, timing, and accompanying entertainment that could be disseminated through the mass media. Strengthening pest and disease management capacity for crops and livestock is crucial for mitigating farm-level risks. In addition to best-practice guidelines and the provision of outbreak response training to agricultural extension officers and lead farmers, a surveillance and reporting system to monitor livestock outbreaks should be implemented.
- 82. Ensuring that farmers have access to markets and value chains that enable them to generate profits from their activities is crucial for the sustainable uptake of improved risk mitigation measures. Thus, any project promoting risk mitigation measures should be linked with complementary interventions that facilitate linkages between farmers and reliable buyers, thus enabling farmers to benefit from new export partnerships and on-/off-farm processing activities.
- 83. As this special topic makes clear, it is vital that the Government implements measures to reduce price distortions and to improve the level of coordination between the agencies responsible for both maize marketing and risk coping interventions, thereby creating a more conducive environment for investment in risk management measures. To achieve this, two major reforms are recommended:
  - Promote freer trade by implementing predictable and transparent policies that promote production and export by facilitating efficient pricing at all levels of the supply chain. It is recommended that unnecessary restrictions on trade are ended, with only essential phyto-sanitary restrictions retained. Improvements to transparency will reduce excessive speculation and volatility. Therefore, it is recommended that a system

- be developed to facilitate the dissemination of reliable information related to production, stocks, and prices in a timely manner.
- Redefine the roles of the key public sector agencies responsible for interventions in agricultural markets and ensure a higher level of coordination between them. In particular, these agencies include the Strategic Grain Reserve (SGR) Committee, the Agricultural Development and Marketing Corporation (ADMARC), the Department of Disaster Management Affairs (DoDMA), and the Malawi Vulnerability Assessment Committee (MVAC). Measures should be taken to increase the level of transparency of these agencies' core activities and to establish rules-based management and interventions. Another important measure would be to establish a clear differentiation between social safety net programs and disaster relief programs, and to establish well-defined triggers for intervention.
- 84. To make agriculture risk management policy more consistent and responsive, it is recommended that a long-term vision for the sector be developed, accompanied by a functional agricultural information management system. Other important steps would be to harmonize existing policies with international commitments and to strengthen existing mechanisms to achieve a higher level of coordination between donors to avoid: (a) reduplication and overlap; and (b) gaps between donors' plans and those of the MoAlWD. It should also be emphasized that agricultural risk management is not a one-off task. Rather, it is an ongoing process that is intrinsically linked with broader agricultural policy, so it is vital that there is a high level of consistency between risk management policies and broader sectoral priorities. It is also vital that the Government engages in a careful cost benefit analysis of the range of possible interventions so that it selects the most cost efficient and effective policies in a context in which its fiscal space is limited.

### Data

Table 4: Selected macroeconomic indicators

	2012	2013	2014	2015	2016 Est.
National Accounts and Prices					
GDP at constant market prices (percentage change)	1.9	5.2	5.7	2.8	2.6
Agriculture	-1.2	5.9	6.1	-2.0	-2.2
Industry	1.8	5.5	5.1	4.4	4.2
Services	3.8	4.7	5.7	5.1	4.6
Consumer prices (annual average)	21.3	27.3	23.8	21.7	20.8
Central Government (percent of GDP on a fiscal year basis)					
Revenue	26.5	39.1	33.0	30.0	32.3
Tax and nontax revenue	22.1	24.5	28.0	26.3	26.9
Grants	4.4	14.5	5.0	3.7	5.4
Expenditure and net lending	33.4	40.5	41.0	35.4	38.0
Overall balance (excluding grants)	-11.3	-15.9	-13.0	-9.1	-11.1
Overall balance (including grants)	-6.9	-1.4	-8.0	-5.4	-5.7
Foreign financing	1.6	2.7	2.8	0.2	4.2
Domestic financing	6.7	-0.2	5.9	4.8	1.0
Money and Credit					
Money and quasi money (percentage change)	22.9	35.1	20.7	23.7	16.7
Credit to the private sector (percent change)	25.4	14.4	20.0	29.9	20.3
External Sector (US\$ millions, unless otherwise indicated)					
Exports (goods and services)	1,421	1,657	1,737	1,616	1,670
Imports (goods and services)	2,281	2,315	2,399	2,284	2,607
Gross official reserves	236	397	588	670	660
(months of imports)	1.2	2.0	3.1	3.4	3.2
Current account (percent of GDP)	-3.5	-1.8	-5.1	-4.1	-6.3
Debt Stock and Service					
External debt (public sector, percentage of GDP)	28.5	43.7	47.0	52.5	47.1
Domestic public debt (percentage of GDP)	19.6	28.1	21.2	23.9	26.8
Total public debt (percentage of GDP)	48.0	71.9	68.2	76.4	74.0
Poverty					
Poverty rate (US\$1.9/day in PPP terms)	71.0	70.3	69.5	69.6	69.8
Poverty rate (US\$3.1/day in PPP terms)	87.7	87.2	86.8	86.8	87.0

Source: World Bank staff based on MoFEPD, RBM and IMF data

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