



ZIMBABWE

PUBLIC EXPENDITURE REVIEW

WITH A FOCUS ON AGRICULTURE



2019

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GLOSSARY

AKIS	Agricultural Knowledge and Innovation Systems
AMA	Agricultural Marketing Authority
ARC	Agricultural Research Council
ARF	Agricultural Revolving Fund
ASPEF	Agriculture Sector Productivity Enhancement Facility
BACOSS	Basic Commodities Supply Side Intervention
CAADP	Comprehensive Africa Agriculture Development Programme
CPI	Consumer Price Index
CRF	Consolidated Revenue Fund
DRSS	Department of Research and Special Services
FAO	Food and Agriculture Organization of the United Nations
FTLRP	Fast Track Land Reform Programme
FX	Foreign Exchange
GDP	Gross Domestic Product
GMAZ	Grain Millers Association of Zimbabwe
GMB	Grain Marketing Board
ha	hectares
IFMIS	Integrated Financial Management Information System
LCU	Local Currency Unit
MAMID	Ministry of Agriculture, Mechanisation and Irrigation Development
MFED	Ministry of Finance and Economic Development
MinAg	Ministry of Lands Agriculture, Water, Climate and Rural Resettlement
MLARR	Ministry of Land, Agriculture and Rural Reconstruction
MLAWCRR	Ministry of Land, Agriculture, Water, Climate and Rural Resettlement
NPLs	Non-performing loans
OEAZ	Oil Expressers Association of Zimbabwe
PBB	Program-based budgeting
PER	Public Expenditure Review
PICES	Poverty Income Consumption and Expenditure Survey
PSF	Productive Sector Facility
RBZ	Reserve Bank of Zimbabwe
RCZ	Research Council of Zimbabwe
RRI	Rapid Results Initiative
RTGS	Real-Time Gross Settlement
TSP	Transitional Stabilisation Programme
y-o-y	year-on-year
ZAMCO	Zimbabwe Asset Management Corporation
ZIM ASSET	Zimbabwe Agenda for Sustainable Socio-Economic Transformation



Executive Summary



This report examines agricultural spending in Zimbabwe. It is a joint product between the Government of Zimbabwe and the World Bank. This Public Expenditure Review (PER) is the 6th in a series with previous volumes, published in 2017, focusing on local government service delivery, state-owned enterprises and parastatals, education, social protection, and cross-cutting issues. The PERs are intended to support the Government of Zimbabwe in improving its fiscal management.

Agriculture plays a critical role in Zimbabwe's economy. About two thirds of Zimbabweans work in agriculture and many Zimbabweans, directly or indirectly, depend on it. Food security in Zimbabwe is intimately linked to agricultural production, especially of maize. The sector used to be at the center of the economy, accounting for about 20% of Gross Domestic Product (GDP) 10 years ago, however, its contribution has since declined to about 10% in recent years. The government continues to intensify efforts to increase productivity in agriculture, and the sector remains a top priority under the Transitional Stabilisation Programme (TSP), covering October, 2018 to December, 2020.

Public spending on agriculture needs to be understood against the backdrop of Zimbabwe's history of land reform. Land reform in Zimbabwe can be classified into two main phases, the Land Reform and Resettlement Programme I (LRRP 1) from 1980-1998 and LRRP II, commonly referred to as the Fast Track Land Reform Program (FTLRP), since 2000. The Government of Zimbabwe undertook its land redistribution program to address the socio-economic injustices of the colonial era. The LRRP I was at first carried out under the principle of willing buyer-willing seller. However, the requirement that land be acquired through the market, coupled with lack of funds and legal constraints, gave rise to the FTLRP, which fundamentally altered the production structure of agriculture, Zimbabwe's most important economic sector. Chapter 1 illustrates the heavy toll these changes took on Zimbabwe's income per capita. The result was the plummeting of government revenue, thus reducing fiscal capacity to stem the decline with fiscal support.

Between 2011 and 2015, spending on agriculture had been broadly comparable to other countries. Chapter 2 draws on the ongoing exercise of remapping expenditure to specific programs (or program-based budgeting (PBB)) to examine expenditure categorization and trends. It shows that between 2011 and 2015, agricultural spending in Zimbabwe had been broadly in line with global standards. Yet, given the considerable investment needed to recover from the losses to agricultural productivity from the early 2000s, spending between 2011 and 2015 was insufficient to meet the needs of agriculture. Donors provide significant support to agriculture in Zimbabwe, but that appears to be poorly coordinated with the government, and the reporting of spending could be better integrated with the government's systems. Overall, agricultural spending varied between 5 and 6% of GDP. Spending soared in 2016/17, however, as the government introduced a new program: Command Agriculture.

Government introduced the new program, Command Agriculture, in 2016/17 in order to reverse decline in agricultural production. As Chapter 3 shows, the dramatic changes to Zimbabwean production and the broader economy following the FTLRP, increasingly depleted sources of resilience: revenue had collapsed, weakened tenure security undermined access to credit, irrigation infrastructure had decayed, and there was greater vulnerability to drought. Access to international capital dried up. Agricultural diversification fell, and the Strategic Grain Reserve was depleted. In an attempt to arrest the decline, government embarked on massive spending on agriculture in 2004, a first round of quasi-fiscal activities (spending financed with RBZ credit) and which was a harbinger of the Command Agriculture scheme over a decade later. Hyperinflation in 2009 was a consequence of these activities, costing Zimbabwe its own currency and monetary policy through dollarization, leaving it more vulnerable to

global monetary and terms-of-trade shocks. Following a brief period of optimism after dollarization, the external environment deteriorated, and banks experienced rising loan impairments, making them more reluctant to finance the private sector. When drought struck again in 2015, the economy had few buffers left to respond to this shock and government introduced the Command Agriculture program to shore up production and guarantee national food security.

The Command Agriculture program required significant outlay. Given limited buffers and the emergency created by the drought, there was little time to prepare for the Command Agriculture program. There was lack of transparency and parliamentary oversight. Private sector involvement in risk mitigation was more limited than may have been possible. The main costs of the Command Agriculture scheme relate to a Special Maize Programme, providing inputs to farmers, and the price wedge between procurement and sales prices by the Grain Marketing Board (GMB), to which all maize produced in Zimbabwe must be sold. While the GMB has moved toward setting procurement prices at import parity, the sales prices remains much lower, driving the cost to the fiscus. The fiscal outlays were largely financed through the monetization of debt with the Reserve Bank of Zimbabwe (RBZ). It is difficult to establish the value for money of the Command Agriculture program: although production increased, this was partly due to the recovery from drought. Substitution of crops to those supported by the Command Agriculture program may have also resulted in higher production. In Chapter 3, estimates based on available data suggest that the Command Agriculture program had a large financial outlay, but had the government not stepped in through this initiative, it would have incurred high economic costs due to lower production, which would have also adversely affected food security.

Sustainable agricultural spending cannot be separated from structural reforms to raise agricultural productivity, and rebuilding of macroeconomic resilience. The losses to agricultural productivity since the 2000s could have been at the core of many of Zimbabwe's macroeconomic dislocations, including hyperinflation in 2009 and high inflation in 2018; a banking crisis in 2015; the loss of an independent monetary and exchange rate policy, limited access to international capital, and at least three currency reforms – dollarization, bond notes, and the digital Real-Time Gross Settlements (RTGS), and mushrooming of public debt and liabilities, including compensation claims from former farmers who were evicted under the FTLRP. Zimbabwe is highly vulnerable to shocks, be they from drought or the global economy. Chapter 4 provides broad recommendations to enhance the sustainability of agricultural spending, placing particular emphasis on the need to reverse the decline of agriculture, within a broader framework of macroeconomic reforms and private sector development.

Some steps to rebuild resilience have already been undertaken in 2019, but the fiscal cost of agriculture has proven difficult to contain. Positive steps include strengthening fiscal credibility and adoption of the RTGS\$ as a new, digital currency. The government is committed to accelerating re-engagement with the international community and the International Monetary Fund (IMF) has commenced a staff-monitored program aimed at implementing a coherent set of policies that would facilitate a return to macroeconomic stability. These developments bode well for agriculture and the rest of the economy. Yet, while the 2019 Budget had originally dramatically reduced the cost of the Command Agriculture program to about 0.5% of GDP, adjustment budgets over the course of the year have raised agricultural spending back to unsustainable levels, at an estimated 5.4% of GDP for 2019.

This PER develops some concrete policy recommendations. The analysis points to strong links between agriculture and the broader economy. While land reform and agricultural spending could have caused macroeconomic dislocations since the 2000s, agricultural production has also been a

victim of these dislocations. Rebuilding sources of resilience is critical, and this includes recreating fiscal buffers, beyond agricultural spending. Such buffers are particularly important to mitigate droughts, which are becoming more severe with climate change. Secondly, the analysis suggests that agricultural spending responds to structural constraints, in the agricultural sector, without addressing these constraints it will be difficult to control spending on agriculture. The PER thus develops some immediate recommendations to reduce the cost of the Command Agriculture program, while also looking at the structural issues that need to be addressed to raise productivity in agriculture.

Recommendations to reduce the cost of the Command Agriculture program

- Reduce the price subsidy in GMB procurement and sales
- Reduce public spending on private goods and reform agriculture finance
- Improve targeting and the provision of inputs and reduce defaults

Recommendations for agricultural productivity and fiscal sustainability

- Strengthen security of tenure
- Enhance investment in infrastructure, especially upstream irrigation
- Foster skills and experience
- Promote effective Agricultural Knowledge and Innovation Systems

Several knowledge gaps remain. For example, a rigorous value-for-money analysis of the Command Agriculture and other agricultural support schemes should be conducted once 2017 data from the Poverty Income Consumption and Expenditure Survey becomes available. Improving the quality of data (including national accounts) would also allow for more accurate inferences – on the expenditure side, the adoption of the PBB methodology is a positive step that should be maintained. Furthermore, detailed development of the recommendations provided in this PER is needed. The ongoing joint visioning exercise for the agricultural sector between the Government of Zimbabwe and the World Bank, and an upcoming Agriculture Finance Diagnostic will provide opportunities for this.

CHAPTER
ONE

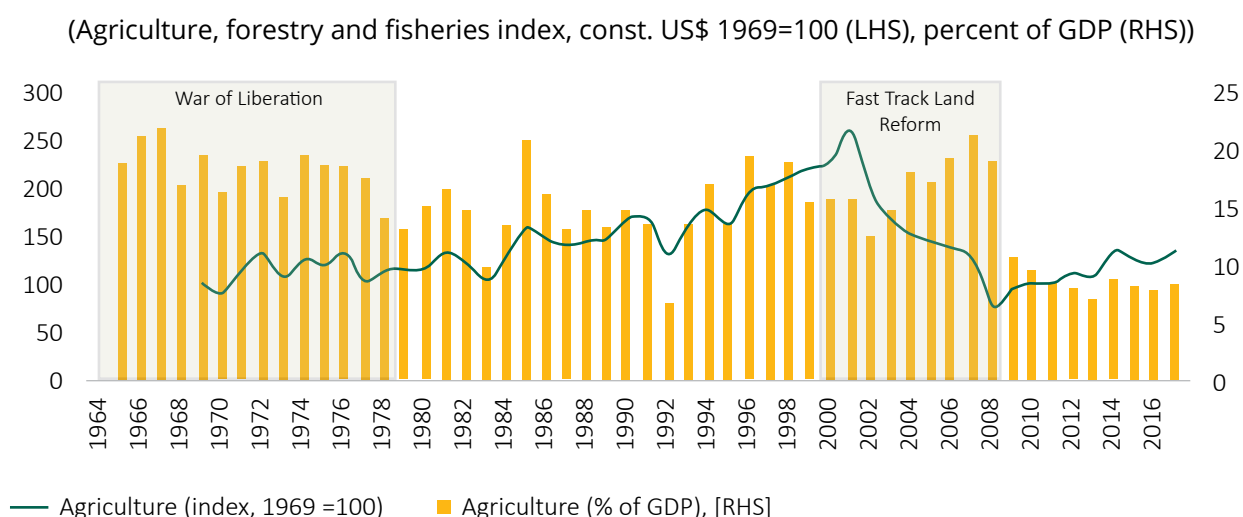
Introduction



This report examines public expenditure in support of Zimbabwe’s agricultural sector. It is the last part of a programmatic Public Expenditure Review (PER), with previous reports focusing on education, municipalities, and state-owned enterprises. The purpose of the reports was to examine the efficiency and effectiveness of public expenditures and identify areas for improvement, to enhance the developmental impact of spending. This report focuses on agriculture which plays a particularly important role in economic development in Zimbabwe: about two thirds of Zimbabweans work in agriculture and it is an important sector both for poverty reduction and food security. Agriculture remains a backbone of the economy and is identified as a priority sector under government’s 2018-2020 Transitional Stabilisation Programme (TSP).

Spending on agriculture in Zimbabwe needs to be understood against the sector’s unique historical background. As in many developing countries, land is critical. The genesis of the structure of Zimbabwean agriculture is described in detail in the World Bank’s 2009 report *Agricultural Land Redistribution: Toward Greater Consensus*. It traces the roots of a racially skewed land distribution policy which has been at the heart of the evolution of Zimbabwean agriculture. Under the 1931 Land Apportionment Act, about 3,000 white farmers were assigned 51% of the land, with 1.2 million ethnic Africans confined to Native Reserves with generally poorer-quality land. When Southern Rhodesia (the predecessor of today’s Zimbabwe) unilaterally declared independence from the United Kingdom in 1965, the government further consolidated the inequitable distribution of land ownership through the 1969 Land Tenure Act. The forceful removal of the African population in support of land policies of the early 20th century created the conditions for armed resistance, sparking the liberation struggle in 1964 which ended in the 1979 Lancaster House Constitution, paving the way for universal suffrage and internationally recognized independence in 1980. Since then land reform has been a central priority for the Zimbabwean government.

Figure 1.1: Agriculture in Zimbabwe, 1964-2017



Source: World Development Indicators and authors’ calculations.

Land reform in Zimbabwe was initially market based on a willing buyer-willing seller basis. When land reform began in the 1980s, resettlement was carefully planned, focusing on small-scale farming, communities and cooperatives, with redistribution of land managed through the national

budget on a willing buyer-willing seller basis or through public expropriation of the land that had been abandoned during the liberation war. Support was relatively well targeted, with resettlement focusing on victims of the preceding war, landless peasants, and people with inadequate land to sustain themselves. Although the process was slower than intended, by 1989 about 52,000 families had been resettled. By 1997, agricultural output of the average resettled family was significantly higher than that of households in the former reserves. Although the area under commercial, large-scale production declined, productivity increased, supported by agricultural support services, increasing penetration of international markets, and a move from traditional crops (e.g. maize and cotton) to higher value export crops. Overall, the early land reform process increased agricultural production in Zimbabwe (Figure 1.1) while raising the inclusivity of the sector. As a major exporter of agricultural produce, Zimbabwe was known as the bread basket of Southern Africa.

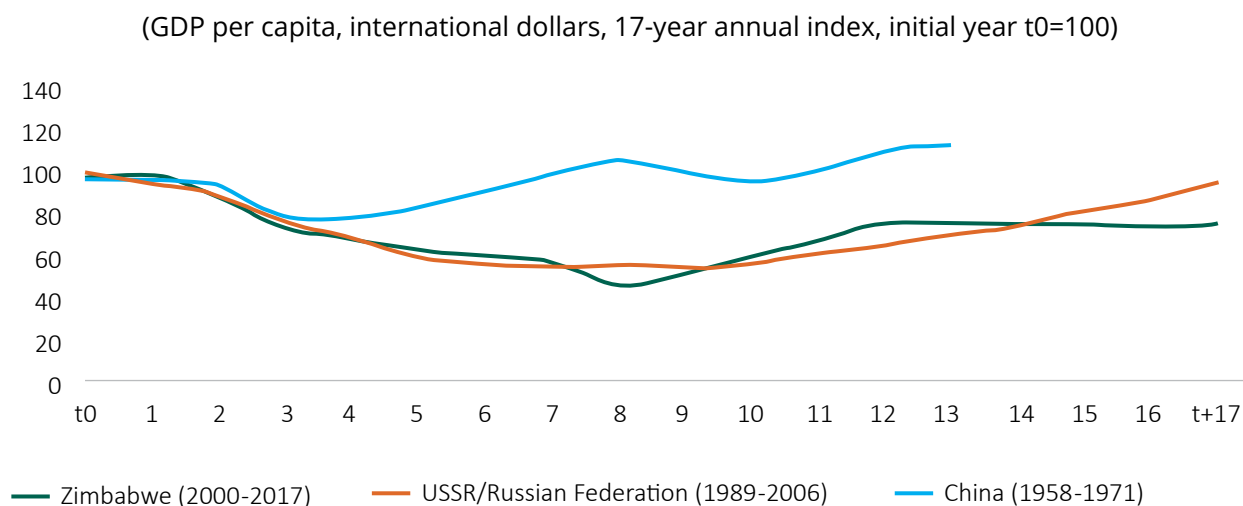
However, the land reform process increasingly encountered a number of challenges. The pace of land reform decelerated, as land markets consolidated following the liberation war, and the land available for acquisition under the willing buyer-willing seller model became scarce. The 1992 Land Acquisition Act was intended to accelerate the process by providing the government with greater power in acquiring land and designating the size and ownership of farms, invariably weakening property rights and depressing land values. The move was met with resistance from commercial farmers, with an increase in litigation against the public sector. The United Kingdom ceased its financial support for land compensation in 1997. By that time, government had transferred 3.5 million hectares, representing about 44% of the initial targets set in 1982. Disappointment due to unmet expectations from the land reform process resulted in popular pressure for more radical approaches to the redistribution of land, further straining property rights.

In 2000 the Fast Track Land Reform Programme (FTLRP) was introduced, through a constitutional amendment that provided the government with greater powers to expropriate land for redistribution. The amendment also placed responsibility for financial compensation for land with the former colonial power, the United Kingdom, limiting the government's financial responsibility to improvements to the land. This was followed by other legislative changes, including regulations limiting the size of farms. The resulting social- economic pressures from the landless majority meant that the technical and administrative processes that partly underpinned the land reform process of the 1980s could no longer be sustained. During accelerated land redistribution process, the resultant resizing of the farms created limitations of the existing infrastructure that had been set up to serve larger farms. So, when the farms were broken up into new structures, the equipment no longer suited the farm sizes and some new farmers didn't have access to the infrastructure they needed. For example, irrigation equipment or a dam could be on one part of a divided farm, leaving the farmer on the other farm without access.

Whilst the FTLRP helped address a sense of historical injustice, it also fundamentally changed the economy. GDP per capita more than halved between 2000 and 2008 (Figure 1.2), in light of the fundamental changes to the structure of agricultural production in Zimbabwe and due to other factors, for example, the sanctions imposed by the United States Congress against the government under the Zimbabwe Democracy and Economic Recovery Act (ZIDERA). Few countries have experienced such dramatic and sustained economic contractions. Large-scale Marxist collectivization under China's Great Leap Forward, which resulted in severe famines between 1958 and 1961 (World Bank 2009) – initially had a similarly strong effect on the economy, but the decline was not as severe, and was reversed much faster than in Zimbabwe. The evolution of Zimbabwean GDP per capita post the FTLRP compares relatively closely to the fundamental restructuring that followed the dissolution of the Soviet Union,

as it transitioned from a command to a market economy after 1989. These international comparisons serve to demonstrate just how dramatic the changes to Zimbabwe’s economy were under the FTLRP. To this day, real GDP per capita remains at about 20% lower than it was in 2000.

Figure 1.2: Evolution of GDP per capita during periods of major economic disruption



Source: Maddison (2007), World Development Indicators, and authors’ calculations.

The FTLRP continues to have implications for public expenditure on agriculture. Given the significant reduction of agricultural potential, considerable public and private resources are needed to rebuild the sector in addition to building the institutions that govern the agricultural value chain. Yet the economic decline translated into a significant reduction in revenue, severely constraining the ability of government to finance services, including agricultural spending. As the remainder of this report will show, government agricultural spending was relatively high in 2017 and 2018, substantially contributing to a large fiscal deficit. Yet Table 1.1. shows that relative to 1999, in real terms, both revenue and expenditure were over 40% lower in 2018, with wages crowding out most of the other spending (see previous PERs). The table also shows that the government’s ability to tax the economy has significantly plummeted since 2000, with government collecting and spending in percent of GDP, only about a third of what it used to. This implies a critical need for the government to spend limited resources for most impact. Chapter 2 examines public support programs in support of agriculture, taking into account both government and donor resources. Chapter 3 then zooms in on one support program in particular, which has absorbed significant resources since 2016/17: the Command Agriculture program.

Table 1.1: Selected fiscal indicators for Zimbabwe, 1999-2018

	1999 Est.	2000 Proj.	2017 Est.	2018 Est.	2018/1999 % change
LCU (billions), current prices					
Revenue	58.6	89.2	3.9	5.5	...
Expenditure	83.1	164.5	6.6	7.9	...
Of which wages & salaries	28.2	33.9	3.0	3.4	...
Overall balance	-24.5	-75.2	-2.7	-2.4	...
US\$ (billions), current prices					
Revenue	3.2	3.1	3.0	2.7	-14.2
Expenditure	4.6	5.7	5.1	3.9	-14.2
Of which wages & salaries	1.5	1.2	2.3	1.7	-29.2
Overall balance	-1.3	-2.6	-2.1	-1.2	-7.5
US\$ (billions), 1999 prices					
Revenue	3.2	3.0	2.3	1.4	-57.1
Expenditure	4.6	5.5	3.9	2.0	-57.1
Of which wages & salaries	1.5	1.1	1.8	0.8	-45.4
Overall balance	-1.3	-2.5	-1.6	-0.6	-53.8
Percent of current GDP					
Revenue	27.3	27.1	14.1	12.8	...
Expenditure	38.8	49.9	24.0	18.5	...
Of which wages & salaries	13.2	16.5	10.9	7.9	...
Overall balance	-11.5	-22.8	-9.9	-5.6	...
Memorandum items:					
Constant GDP (US\$ billion)	20.0	19.2	19.2	19.8	-1.0
Current GDP (LCU billion)	214.2	329.7	27.4	42.8	...
Current GDP (US\$ billion)	11.8	11.3	22.0	23.1	95.9
Implied exchange rate	18.2	29.1	1.3	2.0	...
Consumer Price Index (US)	1.0	1.0	1.5	1.5	50.0

Source: World Development Indicators; For 1999/2000: IMF Article IV, January 2001; For 2017/2018: Ministry of Finance and Economic Development, 2019 IMF Staff Monitored- Program, and authors' calculations.

Rebuilding resilience of the economy is critical, including for food security. Food security is a critical factor. Zimbabwe is no longer the “bread basket of Southern Africa”; it has itself become a net importer of maize. Chapter 3 will demonstrate how reduction in agricultural productivity contributed to various fiscal and broader macroeconomic dislocations and examines implications for food security in Zimbabwe. This has repeatedly led the government to resort to ambitious programs to revamp agricultural production – financed through monetized debt in the absence of other financing sources. Such “quasi-fiscal activities” in 2004/5 and 2016/17, in both cases contributing to significant macroeconomic imbalances – including high or hyper-inflation – reflected a deep-seated vulnerability that requires fundamental structural reform to support agricultural production.

Government is currently engaged with the World Bank on a visioning exercise for the future of agriculture. The vision is meant to show not only what could be achieved in the future, but also what had to be done, what had to be changed, and maybe most importantly what had to be avoided in order to achieve the vision. The International Monetary Fund (IMF) commenced a staff-monitored program in 2019 and the Zimbabwean authorities are pursuing re-engagement with the international community. Fiscal policy credibility has been strengthened in 2019, and Zimbabwe’s Real-Time Gross Settlements (RTGS) dollar, one of the world’s first digital currencies, has returned to it some monetary policy authority. It is an improved environment for further reforms and greater stability and progress. Against this backdrop, Chapter 4 provides some high-level policy implications emerging from this PER, with a view to sustainably improving agricultural expenditure.



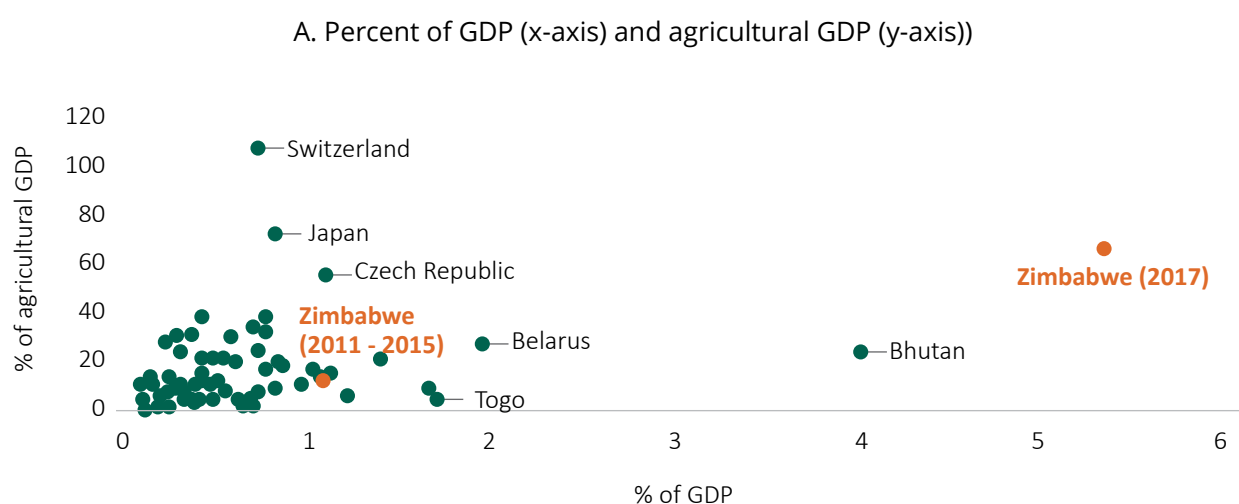
CHAPTER
TWO

Public
Expenditure on
Agriculture

This chapter examines Zimbabwe's public expenditure on agriculture over the period 2011-2017/18. It builds on the analysis of the Indaba Agricultural Policy Research Institute (IAPRI) and the Zimbabwe Economic Policy Analysis and Research Unit (ZEPARU) (2017, see Annex 2) by extending it in three dimensions. First, it remaps the 2011-2017 expenditure into the program-based budgeting (PBB) categories that were introduced for agriculture-sector activities of the government under an administration-wide initiative guided by the Ministry of Finance and Economic Development (MFED), beginning in 2017. On the basis of this remapping into PBB terms, an assessment is made of expenditure aggregates and composition, with a more detailed look at spending on agricultural knowledge and information systems (AKIS). Second, it includes disbursements from the project finance of external partners in the agricultural sector. And third, it sketches the fiscal costs of initiatives since 2016/17, known colloquially as the Command Agriculture program.

In 2016/17, agricultural spending increased significantly in Zimbabwe. Between 2011 and 2015, the central government spent about 1.1% of GDP on agriculture, or 13.1% of agricultural GDP, or 5.1% of total government expenditure. This was somewhat higher than global averages (Figure 2.1), and consistent with government's prioritization of agriculture as discussed in Chapter 1.¹ Since 2016, with the introduction of the Command Agriculture program, spending soared, defying any global comparison. In 2017, spending on agriculture from Zimbabwe's Consolidated Revenue Fund (CRF) accounted for 5.4% of GDP, 66.7% of agricultural GDP, and nearly a quarter of the budget. A large part of this is due to price subsidies of the Grain Marketing Board (GMB), and replenishment of the Strategic Grain Reserve, a government asset. Chapter 3 examines the reasons for these expenditures. This chapter focuses on the composition of spending between 2011 and 2017, including a discussion around expenditure drivers in 2018 and 2019.

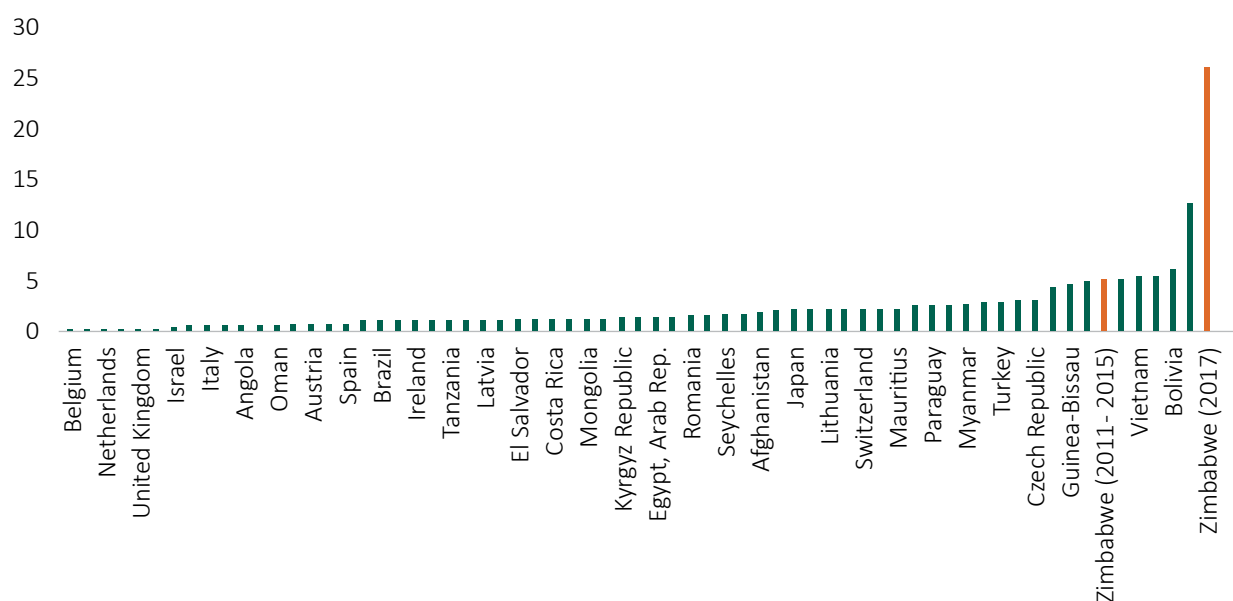
Figure 2.1: Spending on agriculture in Zimbabwe and globally



Source: FAO Government Expenditure on Agriculture, World Development Indicators, and authors' calculations. Data includes 72 countries.

¹ The African Union's Comprehensive Africa Agriculture Development Programme (CAADP) target of 10% public spending on agriculture was only reached by 10 member states, according to a 2018 presentation to the Assembly of the African Union on the Malabo Declaration.

B. Percent of government expenditure



Source: FAO Government Expenditure on Agriculture, IMF, and authors' calculations. Data includes 67 countries.

Note for Figures A and B: Spending for countries other than Zimbabwe includes fisheries, forestry, and hunting; latest year available between 2011 and 2017.

2.1 GOVERNMENT EXPENDITURE

This section looks at government expenditure on agriculture in PBB terms over the 2011-17 period financed from the CRF. This was essentially spending administered by the ministry responsible for agriculture, which was denominated the Ministry of Agriculture, Mechanisation and Irrigation Development (MAMID) for the better part of this period.² Over this period, the MFED budget information systems tracked spending on agriculture with disaggregation by the administrative structure (e.g. departments) of the MinAg, and further by economic classification (e.g. operational and capital cost categories). MFED introduced a reform around PBB towards the latter part of this period, with MinAg among the first to pilot the system, beginning in 2018 with full PBB presentation and management.³

² The Ministry of Agriculture, Mechanisation and Irrigation Development's (MAMID) scope was expanded to include land policy and administration in November 2017, thereby becoming the Ministry of Land, Agriculture and Rural Resettlement (MLARR), and further expanded to encompass water, climate change and meteorological services in August 2018 as the Ministry of Land, Agriculture, Water, Climate and Rural Resettlement (MLAWCRR). For simplicity, the generic "MinAg" will be used to cover the ministry configurations appropriate to their relevant time frames.

³ The mapping of agricultural expenditure from the traditional administrative and economic format into PBB format became practically possible from 2011 when the MFED's IFMIS/SAP computerized budget system became operational. The agriculture budget converted to PBB format beginning with the 2018 [2017 on a trial basis] budget. Remapping from the conventional format to the PBB format for 2011-2017 entails manually inspecting and appropriately remapping with PBB identifiers (programs and sub-programs) each with approximately 12,000 entries for agriculture in IFMIS for this period.

The government's expenditure database⁴ that was available for this analysis only includes expenditure from the CRF and does not cover expenditure that is financed from other funding sources such as statutory funds and retention funds. The Agricultural Revolving Fund (ARF) is one of over 64 statutory and retention funds in operation across government entities, and the only one managed in the agricultural sector, as directed by Section 18 of the Public Finance Management Act (PFMA, Chapter 22:19). Its objective is to provide additional resources to agricultural research, the National Botanical Gardens, and for animal management. It is funded in part by retained earnings of public entities that are kept for operational needs rather than returned to the Treasury; examples are fees for soil testing by public labs, seed varietal sales by research institutes, and publication sales. MFED fiscal management reforms since about 2017 have sought to improve reporting and oversight on the use of such statutory and retention funds across government. For agriculture, detailed data on expenditure from the ARF available from MinAg combined the remapping of the expenditure information available on spending from CRF resources.

AGGREGATE EXPENDITURE FROM GOVERNMENT RESOURCES

Total spending on agriculture from government CRF resources through MinAg rose modestly from US\$145 million in 2011 over the following four years, before a sharp acceleration to US\$761 million in 2016 (Table 2.1). The 2016 increase was due essentially to four items under the policy and administration category: capital transfers for the Agricultural Marketing Authority (US\$55 million), Grain Marketing Board (US\$377 million), agricultural chemicals and fertilizer (US\$176 million), and equity participation in the Agribank (US\$47 million). Expenditure increased further in 2017, however several of these latter categories of expenditure, particularly for the GMB and agricultural chemicals and fertilizer were not available for the PBB exercise because the MFED stopped end-year reposting of such expenditure to MinAg's Integrated Financial Management Information System (IFMIS) accounts during the continued roll-out of the Command Agriculture initiatives. The table thus accounts for World Bank estimates of the missing expenditures based on the discussion in section 2.4 of this chapter. Including these estimates, agriculture expenditure rose further to US\$1.1 billion in 2017 (these numbers are also reflected in Figure 2.1).

Based on IFMIS data, the assessment misses additional expenditure that is undertaken with statutory and retention funds.⁵ Some information can be gleaned from the MFED annual "Blue Book" or estimates of expenditure, however, which show allocations to (but not actual expenditures for) activities from the statutory and retention funds for the agricultural sector, beginning with the 2015 Blue Book.

⁴ The Integrated Financial Management Information System, or IFMIS.

⁵ Apart from the Consolidated Revenue Fund, there are two additional types of funds: statutory funds established by a specific Act for a specific purpose, and the funds established on the authority of Section 18 of the Public Finance Management Act (PFMA) for administrative convenience. "Most of the PFMA retention funds in Zimbabwe were created as a survival tactic at the height of the government's fiscal challenges. This was to allow government departments to retain part of their revenue to fund critical operations during the hyperinflationary era where even a slight lag in releasing funds from the CRF would significantly compromise government operations and service delivery due to the rapid loss of value for money. The Treasury authorized, albeit without legal backing (before promulgation of the PFMA), certain departments to retain all collected funds to finance critical areas." See Parliament Budget Office, *Statutory and Retention Funds: What is the Way Forward*.

Table 2.1: Public expenditure on agriculture from Consolidated Revenue Fund

US\$, 2011-17

	2011	2012	2013	2014	2015	2016	2017E
1. Policy and Administration	78,262,188	130,224,357	118,445,812	150,043,150	111,137,367	692,744,861	1,156,280,015
1.1 Minister's & Permanent Secretary's Office							1,162,356,492
1.2 Financial and Administration				129,429,248	95,071,814	685,844,205	
Estimated expenditures not yet remapped in 2017							
1.3 Human Resource Management	78,262,188	130,224,357	118,445,812	20,613,902	16,065,554	6,443,904	79,180,015
1.4 Legal Services							1,077,100,000
1.5 Information and Technology							6,076,477
1.6 Internal Audit							
1.7 Economics and Markets				456,752			
2. Agricultural Education	2,310,489	1,346,615	1,366,493	1,027,568	278,300	221,583	193,320
2.1 Teaching and Learning	2,037,190	1,108,364	1,167,507	879,925	241,950	172,669	130,822
2.2 Quality Assurance and Alignment with International	273,299	238,251	198,987	147,643	36,351	48,915	62,498
3. Crops and Livestock Research and Technology Development	9,361,129	10,266,304	11,523,360	16,064,563	9,817,312	10,860,167	13,410,642
3.1 Crops Research, Biodiversity and Variety Development	3,715,575	3,956,222	3,805,592	8,542,835	3,632,282	3,789,090	4,302,559
3.2 Livestock and Pastures Production and Variety Research	2,555,840	2,982,727	3,784,117	3,578,517	2,347,861	2,777,786	3,400,905
3.3 Regulatory Compliance and Quality Assurance	2,240,785	2,495,517	2,759,391	2,874,021	2,838,386	3,036,462	3,308,383
3.4 Analytical and Advisory Services	746,928	831,839	1,019,796	1,032,007	964,129	1,218,154	2,032,794
3.5 Migratory Pest Control and Surveillance	102,000	-	154,463	37,184	34,654	38,674	366,000
4. Crop and Livestock Production, Extension and Advisory Services	23,528,699	29,576,479	30,490,697	30,174,813	28,244,392	25,605,811	28,108,384
4.1 Extension and Training Services	21,189,254	26,618,831	27,441,627	27,163,881	25,461,060	23,048,698	25,342,621
4.2 Technical and Advisory Services	2,339,446	2,957,648	3,049,070	3,010,931	2,783,333	2,557,113	2,765,763
5. Agricultural Engineering and Farm Infrastructure Development	9,917,181	8,145,727	9,156,340	9,586,805	9,956,022	9,660,174	85,396,942
5.1 Irrigation Development	7,989,817	5,926,517	6,554,592	7,272,512	7,450,011	7,154,143	82,772,740
5.2 Soil and Water Engineering	963,682	1,109,605	1,300,874	1,156,604	1,077,779	1,168,727	964,455
5.3 Farm Power and Machinery	963,682	1,109,605	1,300,874	1,157,688	1,428,232	1,337,304	1,659,746
6. Animal Production, Health, Extension and Advisory Services	22,278,067	27,533,687	25,320,197	19,337,171	24,217,275	21,904,696	29,814,596
6.1 Livestock Production and Extension	3,337,020	7,051,060	4,637,718	80,000	6,153,059	7,580,652	8,201,100
6.2 Control of Animal and Zoonotic Diseases and Animal Welfare Protection							
6.3 Animal Health Research and Diagnostics	10,150,275	9,164,090	8,975,958	7,974,692	8,129,124	6,169,293	10,498,669
6.4 Tsetse Control and Surveillance	5,301,388	6,868,829	7,288,576	7,329,888	7,224,025	5,545,890	8,264,717
#N/A	3,489,385	4,449,709	4,417,944	3,952,591	2,711,067	2,608,861	2,850,110
Grand Total	145,657,754	207,093,170	196,302,899	226,234,070	183,650,669	760,997,293	1,319,283,183

E=estimated.

Source: Authors' calculations based on MFED data and includes 2017 estimates from Table 2.5 in this chapter.

Annual allocations to agricultural activities from statutory and retention funds over 2015-17 were in the US\$16.6-18.7 million range. When combined with expenditures on agricultural activities from the CRF, this amounts to 6-8% of resources available to the sector.⁶ The distribution of these additional resources by PBB can be determined roughly and is included in the next section.

COMPOSITION BY PROGRAM

MinAg initiated planning for PBB in 2017 through identification of 6 main programs that further decomposed into 28 sub-programs, each with identified outcomes and outputs. Expenditure from 2011-2017 from the IFMIS database was remapped into this PBB structure, with results shown in Table 2.1.

Expenditure on program 1: policy and administration is the most volatile. This is because it encompasses a number of areas with policy-dependent expenditure: spending on input subsidies, transfers to the GMB to cover gaps between procurement prices for food staples (some going into strategic reserves) and the values at which these stocks are eventually moved off the GMB's accounts, as well as equity participation in state-owned enterprises in the sector.

The other 5 program areas show more stability in US dollars and share-of-budget terms. Extension services (program 4) account for the largest share of expenditure, followed by animal production (program 6), Research and Development (R&D) (program 3), agricultural engineering (program 5) with agricultural education (program 2) accounting for the smallest share of expenditure.

Trends reveal different fortunes for the various programs. Apart from the Command Agriculture program, agricultural infrastructure spending picked up notably in 2017.⁷ Expenditure on extension grew over 2011-2014 but then stagnated. R&D benefited from over 50% growth in expenditure over 2011-2014 but then saw its funding drop sharply in the following years. Agricultural engineering received stable annual funding until an increased focus on irrigation brought additional resources from 2017, increasing nearly tenfold compared to previous years.⁸ Agricultural education suffered from a gradual erosion of its expenditure over 2011-14, then a further slash in 2015, ending the period with 2017 spending at scarcely 10% that of the 2011 level. With 10 agricultural colleges under MinAg oversight, this program expenditure level scarcely reaches US\$20,000 per institution from the CRF.⁹

However, three program areas are the main focus of, and benefit from additional resources of the ARF. Half of these are for livestock program activities, almost a quarter for the financing of research activities, and almost a fifth for funding of agricultural education. The relative importance of the ARF to these three program areas is affected by the differing levels of CRF resources made available to

⁶ Though the share drops in years when quasi-fiscal expenditure jumps to finance transfers to cover Grain Marketing Board deficits, and input subsidy program costs.

⁷ The Government of Zimbabwe and the World Bank are currently conducting a joint irrigation assessment, developing a National Water Resources Master Plan, 2020-2040.

⁸ These numbers are still being revisited.

⁹ Chibero, Esigodini, Gwebi, Kushinga Phikelela, Mlezu, Rio Tinto, Mazowe Veterinary College, Shamva, Tangwena, and Mashayamombe.

each. The agricultural education program, which spends little from CRF resources, relies on the ARF for over 90% of the funding for its activities. For research and livestock, the ARF contributes about a quarter to their total funding. The composition of spending from government resources, once the ARF's resources are included, is revisited in Table 2.2.

Table 2.2: Composition of expenditure on agriculture by program

(Percent of total expenditure, including Agricultural Revolving Fund)

	2011	2012	2013	2014	2015	2016	2017
1. Policy and Administration	51	60	57	62	56	89	85
2. Agricultural Education	2	2	2	2	2	<1	<1
3. Crops and Livestock Research and Technology Development	8	6	7	8	6	2	2
4. Crop and Livestock Production, Extension and Advisory Services	15	14	15	12	14	3	2
5. Agricultural Engineering and Farm Infrastructure Development	7	4	5	4	5	1	7
6. Animal Production, Health, Extension and Advisory Services	18	15	15	12	17	4	3
Total	100	100	100	100	100	100	100
Memo Item:							
Total Expenditure, US\$ millions	153.6	217.0	209.1	244.1	201.3	779.7	1,147.6

Source: Authors' calculations based on MFED and MLAWCRR data.

Note: Total expenditure is comprised of Consolidated Revenue Fund plus Agricultural Revolving Fund. Estimates for 2017 spending consistent with Table 2.1 adding the Agricultural Revolving Fund.

ASSESSING EXPENDITURE COMPOSITION: EXAMPLE OF PUBLIC EXPENDITURE FOR AGRICULTURAL KNOWLEDGE AND INNOVATION SYSTEMS (AKIS)

AKIS are critical for agriculture. Such agricultural sector capacity is usually understood to encompass research, extension and education, or in Zimbabwe's PBB terms, program 2, 3, and 4, accounting for 4-25% of agricultural spending over 2011-17. The quantity and quality of this expenditure are fundamental to agricultural productivity growth, yet over the past decade in Zimbabwe, stagnant public budget allocations for AKIS activities have covered little more than staff costs. Spending on AKIS can be compared with a benchmark established by the African Union's Khartoum Decision.¹⁰ In 2006,

¹⁰ Towards Achieving the African Union's recommendation of expenditure of 1% of GDP on Research and Development. UN Economic Commission for Africa, ECA Policy Brief, No. ECA/18/004.

African Union members committed to raising national gross expenditure on R&D to at least 1% of GDP, in order to increase innovation, productivity and economic growth. Achieving this would require both government and private sector commitment to raising their respective expenditures on R&D. The 1% target was also adopted by the African Union's Comprehensive Africa Agriculture Development Programme (CAADP) as a benchmark for sectoral AKIS expenditure. Since the Khartoum decision, R&D expenditure of most African countries has remained relatively stable or grown as a share of GDP. While few countries in Sub-Saharan Africa have attained the 1% target, Zimbabwe, Malawi and South Africa are at the upper end, at over 0.7%.

Both the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZIM ASSET) and the TSP, have acknowledged the importance of R&D in agriculture for a dynamic and competitive national economy. However, in these documents government has not endorsed a specific target for expenditure on R&D. With budget support stagnating, the transitional government ahead of the 2018 national elections, instituted an economy-wide rapid results initiative (RRI) that included the R&D target of 2% of GDP (1% public sector and 1% other actors). With the country's GDP currently at about US\$18 billion, the 2% target for R&D finance amounts to US\$360 million. The 2017 Treasury allocation for R&D was only US\$76 million and declined further in 2018 to US\$56 million.

Spending on AKIS in Zimbabwe occurs through various channels, with public sector budgets the most quantifiable. Other channels include national private sector activities, R&D by international agricultural research organizations with their own funding, and scientific and policy research relevant to Zimbabwe undertaken by regional consortia such as the Centre for Coordination of Agricultural Research and Development for Southern Africa and the Food, Agriculture and Natural Resources Policy Analysis Network.

Zimbabwe's public sector expenditure on AKIS occurs mainly through three programs managed by MinAg. These cover research (mainly the Department of Research and Special Services, (DRSS)) with about a third of the budget; More than half goes to extension services (mainly through the agricultural extension services agency (AGRITEX)) and roughly a tenth for education. Program budgets are primarily out of the CRF but significant funding also comes from the statutory ARF. From these combined sources, the AKIS programs approved budgets jumped by nearly 75% in 2018 to US\$69 million.

Two features impinge upon the effectiveness of these approved budgets. First is the significant share absorbed by staff costs, leaving limited budgets for the maintenance of research stations, labs and school structures, mobility of extension agents and for research and communications. Nearly 85% of the 2017 extension budget was allocated for staff costs, leaving under US\$4 million for all other activities; while 53% of the research budget was intended for salaries, with the balance of US\$6 million left for non-wage research activities. The second limitation is that only a fraction of the approved non-wage budget has actually been released by the Treasury to the implementing departments. Extension, for example, has in recent years only received a third to half of its approved non-wage budget.

The Tobacco Research Board, which is a public sector entity has responsibility to undertake research on flue-cured tobacco, and varietal development and release in the country. Funding for its research under the Tobacco Marketing and Levy Act, comes from a levy and seed sales. Revenues

were in the range of US\$12-15 million over 2014-15, before subsequent increases in tobacco production spurred by the other agriculture program incentives.¹¹

Other research activities are undertaken publicly through state universities. Budget resources for the functioning of the Agricultural Research Council (ARC) flow through the MinAg at a level ranging from US\$200,000 -300,000 annually over the current decade.

Spending on AKIS from government resources is augmented by private sector and international research entities that undertake agricultural research and extension activities. Aggregate funding estimates are not presented here, but for illustrative purposes, the SeedCo Group's 2017 R&D budget was US\$7.5 million, with just under half of its revenues arising from Zimbabwean activities, suggesting a pro-rata estimate of Zimbabwe-specific research equivalent to about US\$3.5 million. SeedCo has acquired a minority stake in a regional seed company specializing in horticultural seed varietal development, as these crops are of growing commercial interest in Zimbabwe. Other seed companies active in Zimbabwe, such as the Quton Seed Company that specializes in cotton, conduct varietal research. In addition, the Agricultural Research Trust conducts research on a contract basis on behalf of its members. International research organizations, primarily Consultative Group on International Agricultural Research (CGIAR) institutes, undertake agricultural research of relevance to Zimbabwe, of which the International Maize and Wheat Improvement Center is the most active with a research program anchored in its station on the outskirts of Harare. Leveraging private foundation and private company project funding, it is undertaking varietal research and makes breeding lines available to private seed companies and the government for hybrid development. It is also undertaking other research such as on conservation agriculture. The International Crops Research Institute for the Semi-Arid Tropics, an institute of the CGIAR, is an implementing partner in agricultural projects funded by the European Union (EU), the United States Agency for International Development (USAID) and the Australian Center for International Agricultural Research.

At national level, institutional responsibility for AKIS falls under the umbrella of the Research Act,¹² which has designated the Research Council of Zimbabwe (RCZ) a statutory body. Overall research policy is coordinated under the Office of the President and Cabinet, and other key research activities being coordinated and managed by the Ministry of Higher and Tertiary Education, Science and Technology Development.

The RCZ was established in 1986 to promote, direct, supervise and coordinate research including agriculture research. A major function of the RCZ is advising government on research for sustainable development. RCZ also convenes and coordinates government, academic and industrial research priorities. It can mobilize and serve as a conduit for financial and infrastructural support among research institutes and councils.

The DRSS in the MinAg sets priorities on agricultural research in consultation with the AGRITEX and the Department of Agricultural Education to strengthen the AKIS. Annual proposals are consolidated by the MinAg and conveyed to the MFED, and on which an annual budget is approved. In the past, a Committee on On-farm Research and Extension within the MinAg performed the two functions, but it has scarcely functioned in the past decade.

¹¹ Tobacco Research Board (2016). Annual Report for the year ended June 30, 2016.

¹² Research Act (22/2001) Chapter 10:22.

Historically, the ARC played a central role in coordinating agricultural research among Zimbabwe's multiple stakeholders. In the late 1990s, the ARC had eight research programs, but has been affected by underfunding. With the modest funding that it now receives through the MinAg budget, ARC is focusing on re-establishing provincial ARCs and a document prepared in 2018 identified priority and potentially high-impact initiatives.

Zimbabwe's AKIS are faced with three main challenges:

- i Funding constraints;
- ii Bridging existing institutional silos of research/extension/education which are limiting the effective development and utilization of technologies; and
- iii Coordinating AKIS undertakings across government, private sector, and academia for more efficient outcomes.

An issue for AKIS advocates is whether existing or anticipated strategic planning is adequate to address these three challenges, and if not, what approach to take.

The core building blocks of strategic planning are part of the institutional DNA of the main government entities involved in AKIS – the ARC, DRSS and AGRITEX - but have not been effectively implemented over the past decade. The ARC has not had the means to play its coordinating role on research review, prioritization, coordination and funding. The DRSS produced a strategic plan earlier this decade, but focused on its internal operations with limited structural linkages to partners who are also undertaking agricultural research or other parts of AKIS network activity.¹³

External partners are actively seeking to provide support to re-capacitate Zimbabwe's AKIS, but resources remain modest. For instance, the EU, financed the Zimbabwe Agricultural Growth Project with about US\$7 million grant that was launched in 2018 to support multi-stakeholder and farmer-oriented AKIS activities.

But more fundamental steps are needed to overcome Zimbabwe's public underfunding of AKIS. Existing macroeconomic constraints are unlikely to ease substantially in the coming two years or so, and expansion of development partner concessional project finance with re-engagement may expand gradually to fill gaps. The immediate focus could be on building on the efforts of the RRI to mobilize discussions across silos, and identify some of the key building blocks of a healthy AKIS on which capacity building efforts can concentrate, including: domestic resource mobilization, updating the rapid needs assessment, defining short-term and high-impact research, and revitalizing competitive research funding mechanisms. Choices need to be made on the roles of the RCZ, ARC, or other institutions involved in AKIS initiatives.

¹³ Department of Research and Specialist Services Strategic Plan 2012-2015. (March 2012).

2.2

EXTERNAL DEVELOPMENT PARTNER
OFF-BUDGET EXPENDITURE

Substantial expenditure on development of the agricultural sector in Zimbabwe is also undertaken through activities financed by external development partners, outside the government budget management and information system. The scale and composition of this financing however, has remained uncertain since for the focus period of this chapter, 2011-2017, only limited tracking has been undertaken by MFED to aggregate financial flows.

An assessment was thus undertaken to ascertain the dimensions of these financial flows. The approach applied, described in Box 2.1, reveals that disbursements from external partner-funded projects, shown in Table 2.3, averaged about US\$44 million per year over 2011-17, varying from a low of US\$20 million in 2011 to a high of US\$85 million in 2015. Considered as an addition to the resources mobilized by the Government of Zimbabwe, this external funding contributed about 27% to aggregate resources.¹⁴

The composition of this off-budget expenditure is heavily concentrated in 3 of the 6 program areas of the PBB framework. The livestock sub-sector support absorbed 34% of the disbursements, extension another 37%, while agricultural engineering – largely irrigation development – absorbed 17%. The remaining 10% was split between support for strategy development and policy analysis (program 1) and agricultural research. One PBB area – agricultural education – went largely unsupported by externally funded projects.

In composition, externally funded activity differs from government funded ones. The government allocates about 10 percentage points more of its own resources to agricultural research, and about 8 percentage points less to extension, with emphasis on livestock and agricultural engineering roughly equivalent between the 2 funding sources. The institutional architecture for coordination of government resources with external partner resources is weak.¹⁵ An effort to address this was made by establishing the Zimbabwe Agriculture Investment Plan 2017-2012, with a formal structure identified for communication and coordination. But this has yet to become operative. It has been overtaken to an extent by the consolidation of land, water and climate change mandates with agriculture, though it has a limited structure for the coordination of external partner finance with government efforts. A formal external partner working group had not operated for a number of years before being resuscitated in late 2018. A formal coordination mechanism did operate over this period in support of national food security and nutrition policies, but this had a different scope and benefited from its higher level of formal integration into the national strategy, ZIM ASSET.

¹⁴ This is estimated from the flows for 2015-17, which include statutory and retention fund finance in the government-financed amounts, but abstracts from the program 1 expenditure in 2016 that had a big jump for GMB and input subsidy finance.

¹⁵ Government is working on improving Aid Coordination Architecture with Draft Aid Coordination Policy now in place.

Box 2.1. Approach for quantifying development partner expenditure on agriculture

Various sources were used to identify the non-governmental organizations involved in financing activities in the agricultural sector – bilateral, multi-lateral and international NGOs. And among these, the main ones were identified in terms of financial resource mobilization, (Chapter 4 includes recommendations on how to improve alignment between government and donor spending). AusAID, Brazil, the United Kingdom’s Department for International Development, Spain, Swiss Agency for Development Corporation (SDC), USAID, the EU, Food and Agriculture Organization, and multi-donor financed trust funds (such as the World Bank-administered Zimbabwe Reconstruction Fund (ZIMREF) are the external partners responsible for the bulk of financial resources mobilized in support of Zimbabwe’s agricultural sector.

A project inventory was then identified for each of these entities, to include all projects that were active and disbursing for some portion of the 2011-17 period. Public documents on official websites were the primary information sources on the projects.

Project documentation was reviewed to identify project components, so as to include activities (and their disbursements) relevant to this exercise. Basically, activities providing public investments, and goods and services comparable to those provided by the government for the purpose of agricultural development, were included. This meant excluding a range of activities from external partner projects, e.g. humanitarian assistance (food relief), funding of financial revolving funds, and direct support to private off-farm segments of agricultural value chains.

With these filters applied and project activity periods and aggregate financial disbursements identified, for simplicity, the disbursements were spread on a pro-rata basis over the activity period. This was considered as offering reasonable orders of magnitude and discernment of trends in the database.

Finally, from the project documentation descriptions of component activities, assumptions were made and applied in the ascribing of disbursements to the PBB categories of activities that define current government priorities in the agricultural sector.

For almost all of the bilateral and multilateral agencies whose projects were included in this analysis, the project inventories, component inclusion, and assumed breakdown of flows by government PBB categories, have gone through an initial technical validation.



Table 2.3. External partner disbursements on agriculture

(US\$ and PBB Composition, 2011-17)

	2011	2012	2013	2014	2015	2016	2017
SUB-TOTAL, External Partners Disbursement	19.6	23.2	39.7	56.4	85.3	37.8	42.4
<i>Program Distribution, US\$ million</i>							
P1: Policy and Administration	1.3	2.1	2.5	3.1	1.6	0.4	0.3
P2: Agricultural Education	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P3: Crop & Livestock Research & Technology Development	0.7	1.0	4.3	6.4	4.8	1.0	1.0
P4: Crop & Livestock Production, Extension & Advisory Services	9.6	9.8	15.3	20.9	17.8	15.4	14.5
P5: Agricultural Engineering & Farm Infrastructure	0.4	0.9	2.6	5.7	44.0	5.9	13.7
P6: Animal Production, Health, Extension & Services	7.6	9.3	14.7	20.3	16.7	14.3	12.4
<i>Percent of sub-total</i>							
P1: Policy and Administration	7	9	6	6	2	1	1
P2: Agricultural Education	0	0	0	0	0	0	0
P3: Crop & Livestock Research & Technology Development	4	4	11	11	6	3	2
P4: Crop & Livestock Production, Extension & Advisory Services	49	42	38	37	21	41	34
P5: Agricultural Engineering & Farm Infrastructure	2	4	7	10	52	15	32
P6: Animal Production, Health, Extension & Services	39	40	37	36	20	38	29

Source: Authors' estimates based on external partner public documents and websites.

2.3 TOTAL EXPENDITURE

Table 2.4 summarizes Zimbabwe’s total spending on agriculture from 2011 to 2017. Central government funding through the CRF is by far the most important spending category (between 65 and 96% of total agricultural spending), followed by funding from external partners (between 3 and 29%) and, finally, statutory and retention funds (between 1 and 6%). Funding remained relatively stable between 2011 and 2015 – it increased dramatically in 2016 with the introduction of the Command Agriculture program, which is discussed in more detail in the next section.

Zimbabwe’s agriculture expenditure was not guided by a national agricultural policy decisions or priorities. Despite a major structural shift of the sector since the FTLRP, Zimbabwe did not have an active agricultural policy for many years. Zimbabwe Agricultural Policy Framework: 1995 to 2020” was in place until 2012, when a new “Comprehensive Agricultural Policy Framework” was drafted.¹⁶ The new framework remains in draft form without official government endorsement. Currently, the government is undertaking a process to update the 2012 policy framework, taking into account the new challenges and needs of the sector. Additionally, Zimbabwe prepared a National Agriculture Investment Plan, supported by the continental initiative – the Comprehensive Africa Agriculture Development Programme, which aims to increase investments and productivity in the sector. The goal is to reach an annual agricultural growth rate of more than 6% and to ensure that the government allocates at least 10% of total expenditure to the agriculture sector. Very little progress has been made to operationalize the priorities identified in the investment plan and no concrete link can be made between government expenditure choices and priorities in the plan.



¹⁶ Draft National Agriculture Policy Framework (draft 2018).

Table 2.4: Consolidated expenditure of government, 2011-2017

(nominal local currency, percent of GDP, and percent of agriculture GDP)

	2011	2012	2013	2014	2015	2016	2017e
Million US\$							
Total Public Expenditure on Agriculture	173.3	240.1	248.4	300.5	286.2	816.7	1190.2
from Consolidated Revenue Fund	145.7	207.1	196.3	226.2	183.7	761.0	1130.3
from statutory and retention funds (disbursed)	8.0	9.9	12.8	17.9	17.7	18.7	18.0
by external partners (estimated disbursements)	19.6	23.1	39.3	56.4	84.9	37.0	41.9
% of GDP							
Total Public Expenditure on Agriculture	1.2	1.4	1.3	1.5	1.4	3.9	5.6
from Consolidated Revenue Fund	1.0	1.2	1.0	1.2	0.9	3.7	5.4
from statutory and retention funds (disbursed)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
by external partners (estimated disbursements)	0.1	0.1	0.2	0.3	0.4	0.2	0.2
% of agricultural GDP							
Total Public Expenditure on Agriculture	14.2	17.4	18.2	17.6	17.3	50.5	70.2
from Consolidated Revenue Fund	11.9	15.0	14.4	13.3	11.1	47.0	66.7
from statutory and retention funds (disbursed)	0.7	0.7	0.9	1.0	1.1	1.2	1.1
by external partners (estimated disbursements)	1.6	1.7	2.9	3.3	5.1	2.3	2.5
% of total government expenditure							
Total Public Expenditure on Agriculture	5.3	6.9	6.2	7.5	6.8	16.4	23.5
from Consolidated Revenue Fund	4.4	5.9	4.9	5.7	4.4	15.3	22.4
from statutory and retention funds (disbursed)	0.2	0.3	0.3	0.4	0.4	0.4	0.4
by external partners (estimated disbursements)	0.6	0.7	1.0	1.4	2.0	0.7	0.8
Memorandum items							
GDP (LCU billion)	14.1	17.0	19.1	19.5	20.0	20.8	27.4
Agriculture GDP (LCU billion)	1.2	1.4	1.4	1.7	1.7	1.6	2.2
Expenditure (LCU billion)	3.3	3.5	4.0	4.0	4.2	5.0	6.6

Source: Tables 2.1-2.3.

2.4 SPENDING ON SPECIAL PROGRAMS

Launched during the 2016/17 summer cropping season, a set of initiatives were introduced to help ramp up agricultural production. This entailed mobilizing substantial private financial resources, but also relied on significantly scaled-up Treasury and quasi-fiscal spending that also contributed to unsustainable overall fiscal deficits in 2017 and 2018, as further discussed in Chapter 3.

The total public finance costs of agricultural scale-up initiatives during 2017 and 2018 has four main components:

- Scaling up of the existing presidential input support scheme to support vulnerable households;
- Public finance to establish a tobacco input revolving fund and support a cotton input scheme;
- The Special Maize Programme, at the core of the Command Agriculture program, to provide inputs, irrigation, and mechanized equipment to farmers on a contingent financing basis, with government covering farmers' non-repayment;
- A price wedge between GMB's procurement and sales prices, notably for the Strategic Grain Reserve, to incentivize selling of maize to GMB (through the procurement price) and subsidize millers and consumers (through the sales price).

The presidential inputs support scheme, which has existed since 2011, focuses on subsistence farmers, poverty stricken and food insecure households. According to the TSP, the program draws on "lessons on social protection, both from the harmonized cash transfers, as well as from the Zimbabwe Resilience Building Fund, that provide more sustainable ways to support vulnerable households and allow them to escape the poverty trap, that assistance to vulnerable households needs to go beyond food assistance." Extreme poverty rose to 29% in 2017 from 21% in 2011/12 with rural poverty reaching 40.9% of the population. It is thus an important program for the poor and for household-level food security. Under the presidential inputs support scheme in 2017, government distributed inputs – seeds and fertilizers – to about 1.4 million small-scale rural farms for grain and soya bean production: grain production inputs accounted for about US\$53 million of costs with US\$38 million going to oilseed crops (mainly soya) input costs. For cotton, farmers receive free inputs – fertilizers, planting seed and chemicals – sufficient for a hectare. The Cotton Company (Cottco) took over administration from AGRITEX and the GMB with 155,000 farmers benefiting in the 2016/17 farming season, 385,000 farmers in 2017/2018, and 400,000 farmers targeted for 2018/19. Table 2.5 shows that government spent US\$42.7 million on the presidential inputs support scheme in 2016, scaling it up substantially in 2017 and 2018, to US\$125 million and US\$263 million respectively. Whether the resources are properly targeted and effective could not be evaluated in this study due to lack of data.

A revolving fund for tobacco support was established in 2017. An important cash crop and foreign exchange earner, tobacco production plays an important role in Zimbabwe (also see Chapter 3). The tobacco revolving fund was capitalized with a provision from the RBZ to the tune of US\$28 million in 2017 and US\$70 million in 2018 (Table 2.5). Government supported cotton through an input scheme in 2016 and 2017.

Table 2.5: Estimates of Command Agriculture and other major agriculture initiatives, 2016-2018

(US\$ Million)

	2016	2017	2018
Agriculture input schemes	190	589	490
Vulnerable households /Presidential input scheme	43	125	263
Tobacco revolving fund	0	28	70
Cotton input scheme	42	45	0
Special Maize Programme, net	105	391	157
Outlays	105	439	238
Recovery	0	48	81
Strategic Grain Reserve/ maize, net	357	513	285
Procurement	371	686	473
Sales	14	173	188
TOTAL	547	1102	775
Memo item: TOTAL (% of GDP)	2.6	5.2	3.6

Source: Authors' estimates based on official data.

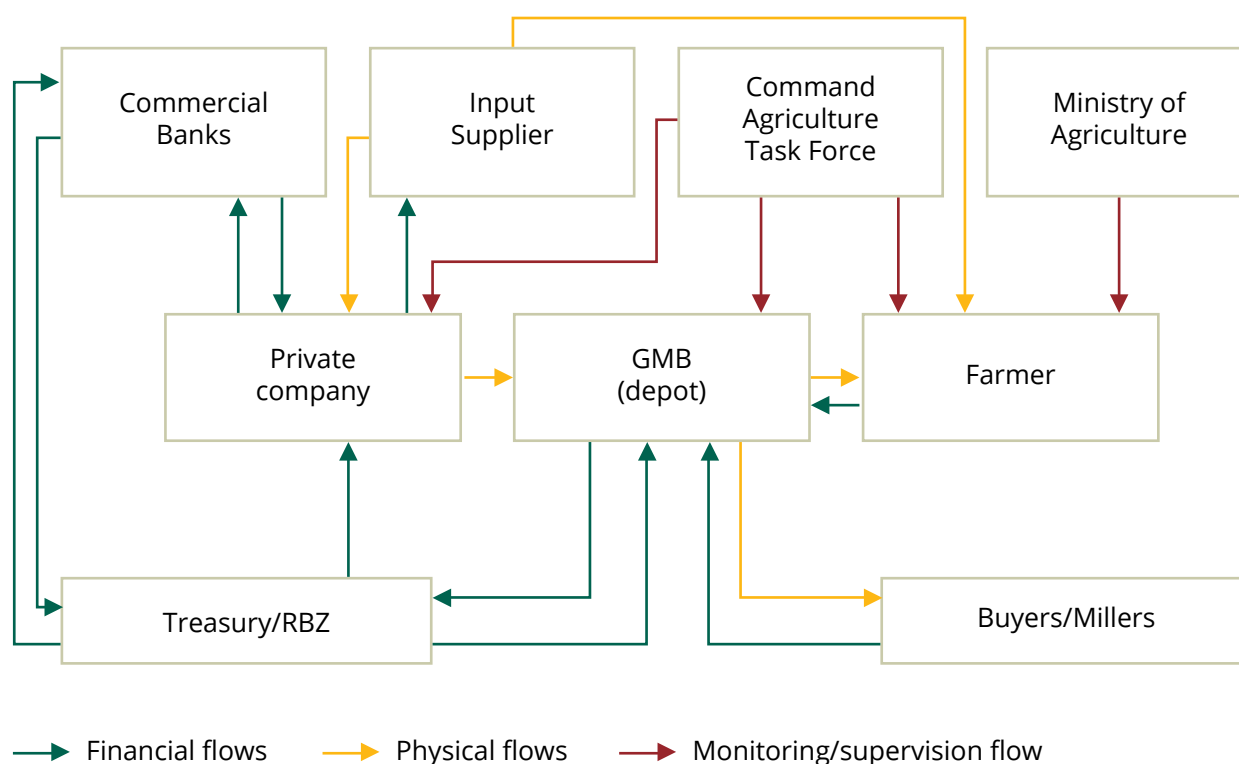
Under the Command Agriculture scheme, government provided security to a private company to supply inputs to farmers while farmers were incentivized to deliver their produce to the GMB. Figure 2.2 shows different channels through which the Command Agriculture program operated and essentially continues to do so (different colors on the arrows show different linkages – green shows financial-flow relationships, yellow physical inputs, while black shows the monitoring/advisory relationship). Treasury entered into a facility arrangement with a private party to supply inputs securitized by Treasury Bills. The private party would source and deliver inputs to various designated GMB depots across the country. At GMB depots the inputs were managed by a Command Agriculture program task team. The team ensures that the farmers sign a contract before getting the inputs. The contract stipulates that the farmer commits to producing a minimum of 5 tons per hectare (in the case of maize or wheat) and would pay back by delivering produce to the GMB (where stop orders were used to deduct the costs of the inputs received). Funds thus collected by the GMB were transferred to the Treasury which then transferred these funds to the private sector to redeem the Treasury Bills.¹⁷ The Command Agriculture program task team supervised and monitored the three channels in the input's distribution – the private company, GMB depot and the farmer – while the MinAg provides advisory services to the farmers. The commercial banks were active in the secondary market for the treasury bills issued as security for the arranged facility.

The government has been covering the default of farmers. Assuming that there were no payments defaults by the farmers, under the Special Maize Programme, Treasury would not incur any costs in paying back what has been paid to the private company. However, most farmers failed to pay back for the support received – which was the same case under previous input support facilities in 2004-2007

¹⁷ In practice, the private companies were already selling the T-bills to commercial banks before the repayment of farmers.

and 2009-2014.¹⁸ Government availed financing to the tune of US\$105 million in 2016, US\$439 million in 2017, and US\$238.3 million in 2018. Yet recovery in 2017 was only US\$47 million, while US\$81.3 million was recovered in 2018. (Table 2.5). This implies very high and increasing non-payment rates from 54% in 2017 to 81% in 2018.

Figure 2.2: Organogram of the Special Maize Programme (command agriculture)



Source: Authors.

To provide additional production incentives, government (through GMB) subsidized grain production. The Strategic Grain Reserve was replenished, while grain was sold to millers with another subsidy. Once the farmers deliver their produce at the GMB depot, it is either stored as grain reserves or sold to the millers/buyers. In essence, GMB pricing includes two subsidies: first, to incentivize production and for the sale of all grain to the GMB, procurement prices well above import parity were offered. Second, to avoid increasing prices for the consumers of final grain products, millers also received a subsidy through a lower sales price. Table 2.6 provides an overview of the fiscal implications of this. In 2018, the procurement price for maize was US\$390 and the sales price was US\$240 per metric ton (MT). Including losses of the GMB, given procurement and sales volumes, this implied a net cost of maize procurement of US\$285 million, equivalent to about 1.3% of GDP. About half of this was due to the subsidies derived from the wedge between sales and procurement prices, with the other part devoted to building stocks in the Strategic Grain Reserve (also including a subsidy price that is above import parity).¹⁹

¹⁸ Low recovery in light of substantial purchases by the GMB points to weak governance in tracing inputs or reclaiming associated input costs of production.

¹⁹ This subsidy is not reflected in Table 2.6.

Table 2.6 also shows the subsidy cost of other crops that were included in the Command Agriculture program, such as wheat and soya beans. Compared to maize, these costs are more limited, however.

The cost of the Command Agriculture program was expected to decrease in 2019, but the Special Maize Programme is likely to require a substantial outlay. For one, the 2019 Budget foresaw lower allocation to the Special Maize Programme, with a guarantee scheme of RTGS\$120 million. This, however, was increased over the course of the year, to the equivalent of RTGS\$2 billion (although this is to a large degree driven by high inflation). For the Strategic Grain Reserve, the GMB endeavored to set procurement prices closer to import parity levels.²⁰ The 2019 procurement price was reduced substantially, from US\$390 in 2018 to US\$242 in 2019. However, the sales price was also lowered significantly, from US\$240 in 2018 to US\$149 in 2019. In addition, Zimbabwe required significant maize imports for the Strategic Grain Reserve in 2019. This means that the expected subsidy for 2019 remained high, at US\$222 million, or RTGS\$1.5 billion (depending on inflation and the exchange rate depreciation). Total outlay for Command Agriculture is likely to be about 5.4% of GDP in 2019, up from 4.2% in 2017 and 2.2% in 2018.

Table 2.6: Costs associated with grain procurement by the Grain Marketing Board, 2018 and 2019

(US\$, RTGS\$, and metric tons)

	2018		2019	
	US\$ / vol.	RTGS\$ / vol.	US\$ / vol.	RTGS\$ / vol.
MAIZE				
Procurement ('000 tons)	1213	500	500	
Price (MT)	390	1400	242	
Cost of Purchase (currency, million)	473	700	121	
Imports ('000 tons)		775	775	
Landed Cost of Imports (per MT)		2016	320	
Cost of Imports (currency, million)		1562	248	
Total Cost of Supplies (currency, million)	473	2262	369	
Sales ('000 tons)	753	975	975	
Price per MT	240	819	149	
Value of Sales (currency, million)	181	798	145	
Losses @2.5% (currency, million)	7	10	2	
Total Cost of Sales and losses (currency, million)	188	808	147	
Net cost (currency, million)	285	1454	222	
o/w subsidy	113	566	91	

²⁰ This depends on the import market, mostly South Africa for white maize, and transportation costs which are relatively high (and even higher if maize needs to be procured from other parts of the world, such as North America, when South Africa also experiences production shortfalls).

	2018	2019	
	US\$ / vol.	RTGS\$ / vol.	US\$ / vol.
WHEAT			
Procurement ('000 tons)	139	149	149
Price per MT	630	1090	352
Cost of Purchase (million)	88	162	52
Sales ('000 tons)	130	130	130
Price per MT	370	670	216
Value of Sales (million)	48	87	28
Losses @2.5% (million)	1	2	1
Total Cost of Sales and losses (currency, million)	49	89	29
Net cost (currency, million)	39	73	23
o/w subsidy	33.8	54.6	17.68
SOYA BEAN			
Procurement ('000 tons)	41	41	41
Price per MT	780	1825	351
Cost of Purchase (currency, million)	32	75	14
Sales ('000 tons)	41	41	41
Price per MT	400	1122	216
Value of Sales (currency, million)	16	46	9
Losses @2.5% (currency, million)	0	1	0
Total Cost of Sales and losses (currency, million)	16	47	9
Net cost (currency, million)	16	28	5
o/w subsidy	16	28	5
Total net cost (currency, million)	340	1555	250
Total cost of procurement	593	2499	435
<i>Less total cost sales and losses</i>	253	944	185
Purchase of small grains (currency, million)	14	28	5
Cost of GMB Operations (currency, million)	71	196	65
Total net expenditure of GMB (currency, million)	425	1779	320
Memo: total subsidy	163	649	113

Source: Authors' calculations based on GMB data.

Note: The subsidy is calculated as the volume of sales multiplied by the difference between procurement and sales prices. The calculation does not include the subsidy that is the difference between procurement and import parity prices for the Strategic Grain Reserve.

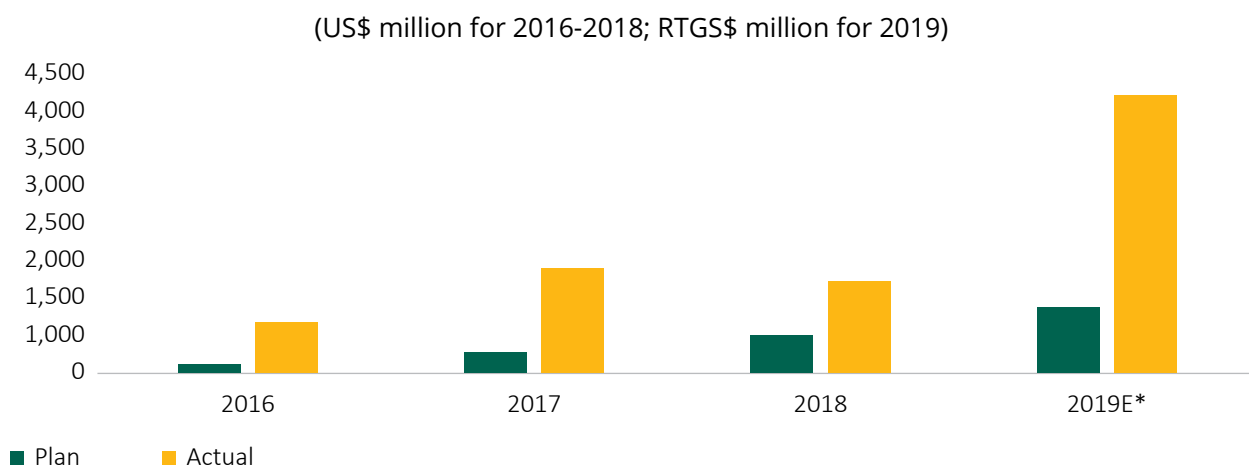
2.5 CREDIBILITY OF AGRICULTURE BUDGETING

Planned overall spending on agriculture was significantly exceeded during budget implementation for the period since 2016 (Figure 2.3). This undermined the quality of budgetary planning, narrowing fiscal space for human capital and infrastructure upgrades. Actual spending in 2016 and 2017 was more than 5 times the planned amount. For 2018, although the gap between planned and actual spending declined, it remained high. Parliamentary oversight also remained relatively weak.

Despite sizable resources allocated to the Command Agriculture program, there is still need for an appropriate implementation framework that allows for efficiency and effective, transparent, implementation of the program Command Agriculture is included under program 1: policy and administration, the largest of the 10 programs in 2019 in the PBB of the MinAg, where 58% of all funds for the ministry are allocated. Yet, there are no performance indicators for this program, in contrast to the rest of the programs. In addition, there is scarce information on the number of actual beneficiaries, number of hectares covered, average yields achieved, and other indicators that would improve understanding by taxpayers of the cost and benefits of the Command Agriculture program. Cross country studies²¹ show that fiscal transparency is associated with improved fiscal discipline, lower perceived levels of corruption, and lower public sector borrowing costs.

The credibility of agriculture budgeting is also undermined by moral hazard. Government intervened in providing agriculture financing due to lack of private funding. Farmers generally respond with higher demand if they see its government giving credit- knowingly there will be no strict enforcement on repayment. This creates unnecessary demand for inputs/credit which in turn distorts the budgeted amounts.

Figure 2.3: Planned and actual spending on agriculture



E=estimated. * 2019 data is in RTGS/ZWL\$

Source: Authors' calculations based on Blue Books and Ministry of Finance and Economic Development.

²¹ Hameed (2005).



CHAPTER
THREE

The Economics
of Spending on
Agriculture in
Zimbabwe

This chapter explores the structural pressures from the agricultural sector on national expenditures and the broader macroeconomy. It argues that effects of the developments of the early 2000s on the economy has persisted and difficult to reverse (restore agricultural productivity). The trust that underpinned the institutions that facilitated productive agriculture before the FTLRP, from contract farming arrangements to the banking system, remain largely broken. Over time, the challenges became more entrenched and complex, gradually consuming the country's sources of resilience. Droughts have become a major threat to food security in Zimbabwe and agricultural policy has increasingly focused on maintaining production of Zimbabwe's main staple crop, maize. Zimbabwe loses approximately US\$126 million on average each year due to drought-related risks. These losses represent 7.3% of agricultural GDP (World Bank 2019). Zimbabwe's increasing vulnerability is a challenge to restoring economic health and sustainable fiscal policy.

Zimbabwe has been losing three broad sources of resilience since the FTLRP. The first is financial.

As Chapter 1 has shown, the damage to Zimbabwe's economy found expression in dwindling government revenue, leaving fewer resources for government to address the formidable economic disruption of the period 2000-2008. Beyond commercial bank financing, recourse to credit for government to address these issues beyond revenue collected is constrained. Due to constrained macroeconomic environment, the Zimbabwean government defaulted on loans from international finance institutions such as the World Bank and IMF. Development finance has since dried up. At the individual farmer level, the ensuing land tenure system exacerbated the challenges faced by the resettled farmers to access credit. Hyperinflation in 2008-2009, also wiped out banks' balance sheets, undermining credit buffers.

Zimbabwe also lost physical sources of resilience. One is the country's irrigation system which is critical for agricultural productivity but also plays a crucial role in making agricultural production less prone to drought (Muzari et al. 2012). This has also accelerated reduction in crop diversification, an important source of resilience, which had already been underway before the FTLRP, with farmers shifting away from food crops to cash crops (World Bank, 2009). Finally, to offset the drop in production of food crops the government drew down the Strategic Grain Reserve. Government has since been trying to rebuild the grain reserves in order to enhance food security. The building of grain reserves however continues to be affected by droughts.

The third source of resilience that has weakened fundamentally is the policy space. Confronted with limited resources to restore agricultural production after the FTLRP, the government resorted to quasi-fiscal activities, contributing to hyperinflation. This eroded trust in the Zimbabwean dollar and the currency collapsed. The economy gradually dollarized. Although this restored macroeconomic stability to an extent, it came at the expense of an independent exchange rate and monetary policy. In a dollarized economy, establishing external balance requires significant internal adjustments, such as through wages – which tend to be downwardly rigid, thus offering poor adjustment factors. At the same time, as agriculture lost most of its export prowess and Zimbabwe became a net food importer, sources of foreign exchange earnings had been significantly curtailed, limited largely to mining and some remaining cash crops like tobacco. To finance the gap with imports, capital inflows were needed, but were limited as Zimbabwe was no longer eligible to borrow from international finance institutions and foreign investors remained cautious over the perceived weakened property rights regime. In such a constrained environment, creating and maintaining foreign exchange buffers is close to impossible.

The fiscal policy space is severely constrained and quasi-fiscal activities are likely to recur frequently unless productivity increases, and sources of resilience are restored. As national requirements

have far exceeded capacity, Zimbabwe's public debt has increased drastically. By 2018, public debt had risen to 61% of GDP, of which 54% is domestic debt which has been the main source of debt dynamics in recent years. When including compensation demands from farmers evicted under the FTLRP, and depending on the valuation of these demands, liabilities are even higher. Broadly, Zimbabwean debt is unsustainable. With a range of policy and non-policy buffers exhausted, any shocks – say from another drought – may not be cushioned. This is particularly problematic because, on average, droughts occur every three years, and because these shocks significantly increase food insecurity. In 2017 and 2018, the Zimbabwean government managed to substantially replenish the grain reserves, an important food buffer. Yet as this chapter will show, it came at a substantial cost including high inflation. Deficit spending financed by monetizing debt is a last resort when all other buffers are depleted. Yet the associated consequences for inflation, an implicit tax on consumers, is not a sustainable solution. For Zimbabwe to emerge from the trap it currently finds itself in, structural reforms are critical to improve the productivity of agriculture and sectors beyond. Where supported by the fiscus, spending needs to be as efficient as possible to ensure that more needs are met with less expenditure.

3.1

FAST-TRACK LAND REFORM AND THE FIRST ROUND OF QUASI-FISCAL ACTIVITIES

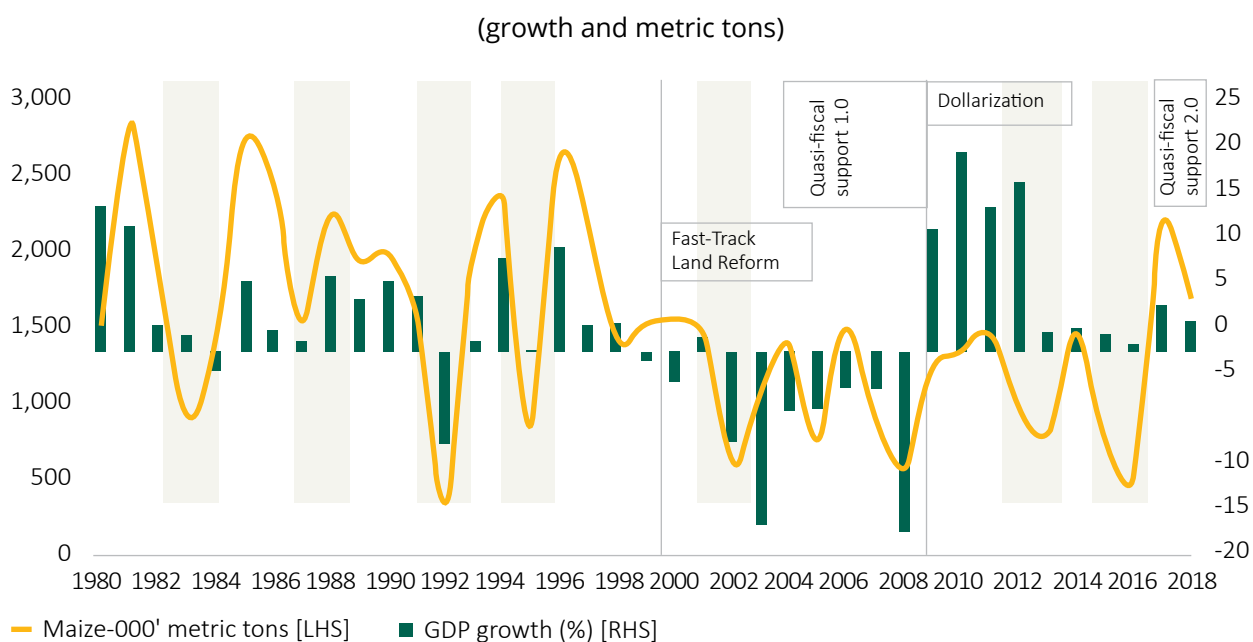
The evolution of agricultural production affected macroeconomic developments in Zimbabwe.

Figure 3.1 shows that there is correlation between maize production and GDP – as maize production declines, GDP declines and this is most noticeable during drought years.²² Before 2000, Zimbabwe's economy was relatively advanced, with widespread linkages amongst the various sectors, namely agriculture, mining, and manufacturing. Agriculture, mining and manufacturing dominated the economy in relation to national output, exports and employment. Economic growth was positive, except in periods of drought. It averaged 4% from 1980 to 1999, the same as the pre-independence period from 1965. As discussed in Chapter 1, following the FTLRP from 2000 agricultural production declined, especially maize. In response to the declining agricultural productivity, the government intervened by supporting new farmers through farm input subsidies as well as RBZ-led quasi-fiscal activities from 2004-2007 ("quasi-fiscal activities 1.0" in Figure 3.1), through programs such as the productive sector facility (PSF) of 2004, the agriculture sector productivity enhancement facility (ASPEF) of 2005, Operation Maguta of 2005 and the farm mechanization program of 2007-8. A similar decline in agricultural production from 2015-16 prompted the government to intervene in a similar fashion – through the Special Maize Production Programme, colloquially referred to as Command Agriculture ("quasi-fiscal activities 2.0").

²² Between 2000 and 2017 the elasticity of GDP and agricultural GDP in real terms has been about 0.5%.

The FTLRP fundamentally changed land ownership and production structure in the agriculture sector. Officially launched on July 15, 2000 the FTLRP was aimed at achieving both equity (justice) and growth (development) with a view to improving the livelihoods of the poor. The Zimbabwe Fast Track Land Reform Policy Framework of 2000 introduced additional two-tier agrarian systems, namely A1 and A2, (on areas formerly dominated by commercial farming). The A1 farming model focuses on two types of small-scale farms, either village or self-contained, with farm sizes ranging between 5 and 70 hectares; the A2 model refers to medium and large-scale farms averaging around 318 hectares. More than 10 million hectares of land was transferred to between 170,000-220,000 households, on small-scale (A1) and medium scale (A2) farms (Table 3.1). The new farmers did not have collateral, and as such, borrowing from banks was limited. The forms of title farmers possess in offer letters, permits and 99-year leases are not deemed bankable. In addition, offer letters and permits are not registered and only a few 99-year leases were issued, making lending against land records impractical at this point. The new agrarian structure led to a decline in either crop area or crop output or both post-2000, though it began to rise selectively from 2006.

Figure 3.1: An overview of the evolution of agricultural production and the economy



Source: MinAg and World Development Indicators.

Note: Shaded areas indicate periods of drought.



Table 3.1: Zimbabwean land holdings since 1980

(million ha)

Land Category	1980 Area (million ha)	2000 Area (million ha)	2018 Area (million ha)
Communal Area	16.4	16.4	16.4
Old Resettlement	0.0	3.5	3.5
New Resettlement A1	0.0	0.0	4.1
New Resettlement A2	0.0	0.0	3.5
Large Scale Commercial Farms	15.5	11.7	3.4
Small Scale Commercial Farms	1.4	1.4	1.4
State Farms	0.5	0.7	0.7
Urban Land	0.2	0.3	0.3
National Parks and Forest Land	5.1	5.1	5.1
Unallocated Land	0.0	0.0	0.7

Source: Scoones et al. (2011).

The new farm ownership structure and size brought about by FTRLP resulted in some incompatibility and degradation of the existing infrastructure. As a result, agricultural production and national food security in Zimbabwe are currently at greater risk, since the country is dependent to a great degree on natural rainfall. There is evidence that households in smallholder irrigation schemes are better off in terms of food production, income, nutrition and general wellbeing than households relying on rain-fed agriculture.²²³

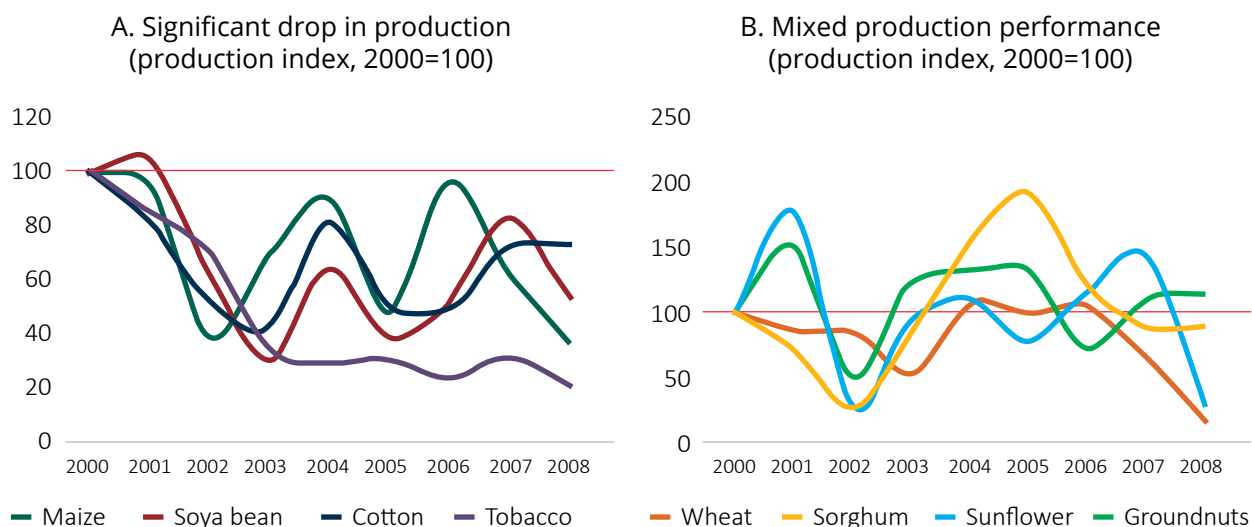
The FTLRP did not affect crops in the same way. Overall, diversification of the agricultural sector declined. The period 2000-2008 witnessed a decline in production of some crops (Figure 3.2), notably maize (the staple crop) and tobacco (a major cash crop). The output of Zimbabwe's main agricultural commodities started declining in 2002. Agricultural productivity declined due to reduced and uneven access to inputs (some farmers received free inputs) and output markets by those who were given land to cultivate. The changing agrarian structure also gave rise to the changing agrarian production relations, that included expansion of food production among the peasantry and smallholder A1 farmers, compared to the export-oriented crops under former commercial farmers. Generally, there has been a substantial shift to many more, smaller-scale farms concentrating on farming an average of two crops, often with low levels of capitalization.²⁴ In addition, redistribution of land to the communal farmers and the landless poor increased the numbers of small and middle-scale agricultural producers and reconfigured the underlying labor relations within the agriculture sector in Zimbabwe. One significant impact of the FTLRP has thus been the reduction in the diversity of crops as the majority of the farmers focused on producing maize and tobacco. Other cash crops such as wheat, ground nuts, soya bean, cotton and sunflower were reduced. The reduction in area planted as well as output levels was because of poor land use, poor irrigation facilities and lack of experience and resources among the new farmers.²⁵

²³ International Fund for Agricultural Development. (2016).

²⁴ Scoones et al. (2011).

²⁵ Moyo (2004).

Figure 3.2: Crop production 2000-2008



Source: MinAg and authors' calculations.

Source: MinAg and authors' calculations.

The contraction of the agricultural sector from 2000 to 2008 contributed to significant drawdowns on grain reserves and led to sizeable imports of grains (Figure 3). The decline in grain outputs since 2000 largely reflects the declining productivity of maize among small farm producers, and a reduction in areas with wheat crops by larger farms. Despite growth in the number of small-scale maize producers and the expansion of maize crop areas, output remains on average 35% below the domestic requirements.²⁶ Maize production suffered from droughts in 2002-3, 2004-5 and 2006-7, when production declined to roughly 45% of the average production in the 1990s. However, during non-drought years in 2003-04 and 2005-06 maize production recovered to about 1,685,000 and 1,485,000 tons, which remained slightly below the average of the 1990s.²⁷ Zimbabwe managed to satisfy the aggregate domestic demand for the staple grains through a combination of domestic supplies, imports, drawing down of grain reserves and food aid in every year except 2007/8. Imports picked up as production declined. Maize imports and food aid have fluctuated over the past 10 years, ranging between 400 and 800,000 tons in relation to the domestic production deficits, reaching the 1 million ton mark during extreme drought years.²⁸

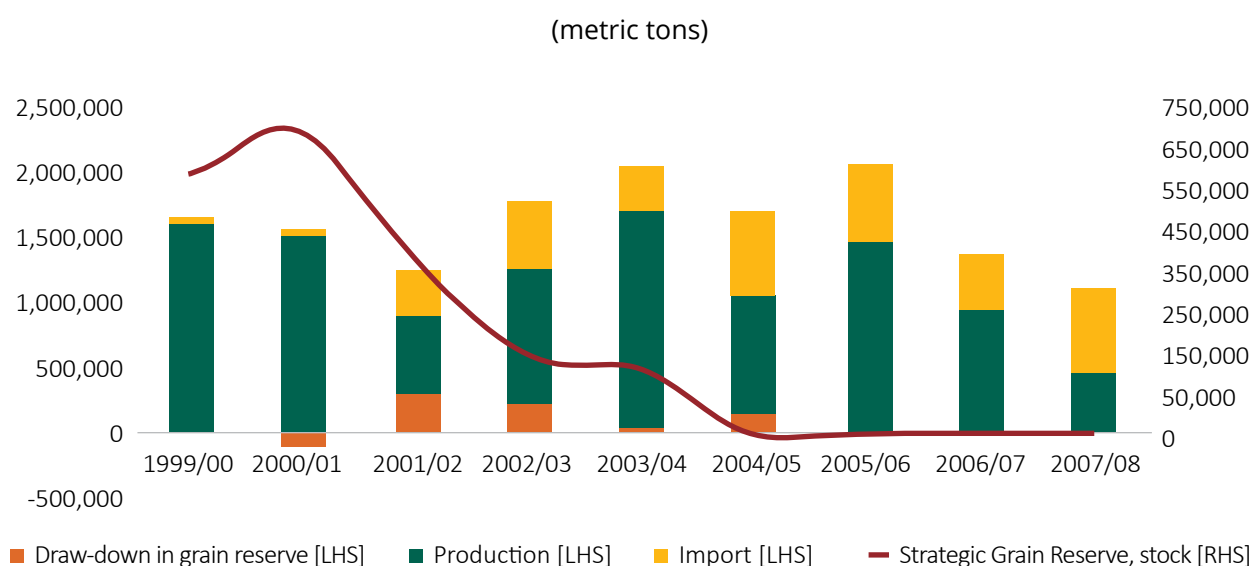


²⁶ World Bank. (2014). Zimbabwe's Food Grain Economy. Mimeo.

²⁷ Ibid.

²⁸ Binswanger-Mkhize & Moyo (2012).

Figure 3.3: Maize consumption, production, imports and change in grain reserves, 2000-2008



Source: MinAg and authors' calculations.

Note: RHS represents grain reserves depleted since 2004, while the LHS represents all other variables.

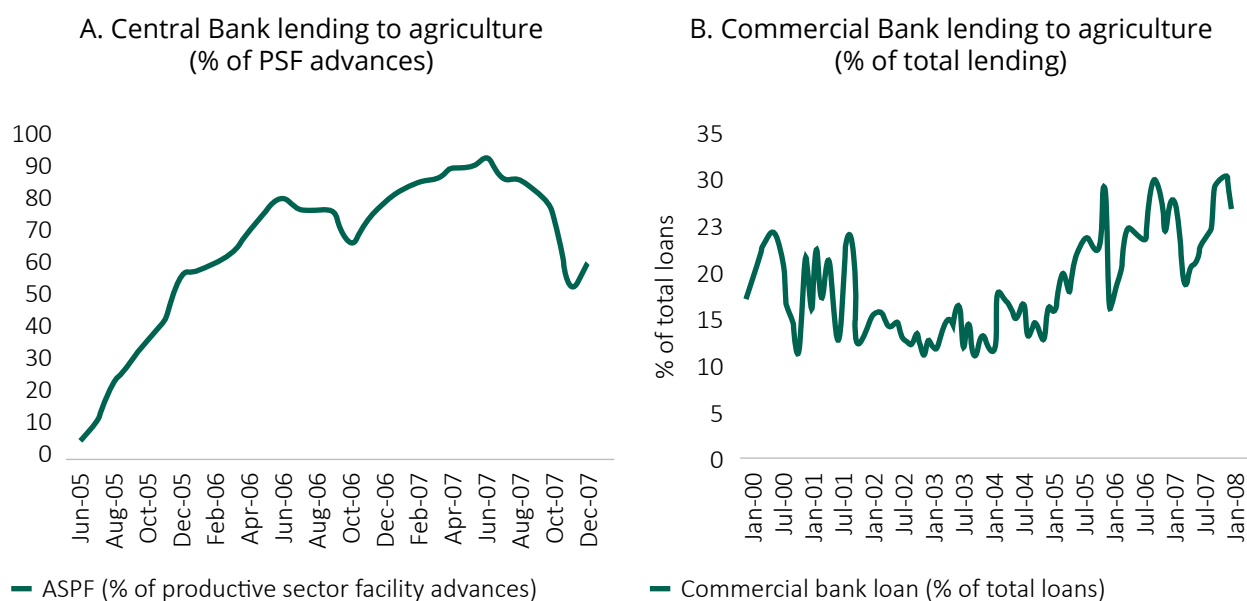
The decline in agricultural production, depletion of grain reserves and rise in imports prompted government to intervene through various input subsidies and RBZ quasi-fiscal activities. The RBZ engaged in quasi-fiscal activities through programs such as the PSF of 2004, ASPEF of 2005, Operation Maguta in 2005 that was expanded in 2007, and farm mechanization program of 2007-8 to stimulate agricultural production through the provision of subsidized agriculture loans to reduce production costs. The PSF for agriculture offered post-settlement support to FTLRP beneficiaries. Under the PSF, beneficiaries of the FTLRP were eligible for loans from the central bank at an interest rate of 25%, compared to the then prevalent market rates of up to 400%.²⁹ In 2005, the RBZ initiated the ASPEF that was meant to finance food production and rebuild the national herd. The amount allocated through ASPEF increased significantly, with advances rising from 12% of the allotted ZW\$564 million in 2005 to 93% by July 2007 (Figure 3.4A). Certain fast track farmers also received heavily-subsidized fuel through the RBZ, which was largely abused. In addition, the RBZ introduced the farm mechanization program in 2007, aimed at distributing farm equipment to both resettled and communal farmers. These initiatives crowded in commercial bank lending to the agriculture sector as some of the government funds were channeled through these banks (Figure 3.4B).

Faced with decreased food production, and dwindling grain reserves, government intervened with yet another quasi-fiscal measure targeting food consumption. In 2007, government introduced the basic commodities supply side intervention (BACOSSI), a food consumption support instrument aimed at providing cheap loans to merchants by the RBZ to buy and/or import basic foods. Merchants who accessed foreign currency under this policy instrument were required to sell these foods at low, controlled prices to consumers. In the same period, agricultural commodity market controls, especially

²⁹ Pazvakavambwa (2009).

over maize and wheat, were re-introduced in 2001, with the GMB's monopoly over the buying and wholesale selling of wheat and maize restored until mid-2008. The Strategic Grain Reserve managed by the GMB was also restored, although its operation was limited by inadequate grain supplies, funding bottlenecks and late payments.

Figure 3.4: Central Bank and commercial bank lending to agriculture



Source: RBZ.

Source: RBZ.

Despite this substantial spending, agricultural production did not pick up, due to several reasons.

Previous studies point to, among others, foreign currency shortages, drought, misuse of the schemes at the cost of genuine farmers, and parallel market operations.³⁰ Furthermore, a separate study found that fixed and improperly indexed interest rates caused the erosion of the capital bases of agricultural finance institutions.³¹ Another study found poor targeting of farmers, with 70% of communal farmers reporting that inputs under the ASPEF were secured only by influential A2 farmers and political leadership, including chiefs and headman.³² The emphasis on food security was therefore not achieved.

Instead of improved food security and increased agricultural production, the monetization of the various facilities contributed in hyperinflation that led to the collapse of the local currency in 2008.

The various interventions did little to stop the decline in agricultural production. Growth in agricultural production and across the economy remained negative – the economy is estimated to have contracted by more than 45% during this period (also see Chapter 1). The monetization of public debt spurred spiraling prices (Figure 3.5A): year-on-year inflation reached 231 million percent in July 2008 after which authorities stopped reporting inflation numbers. This resulted in a loss in confidence

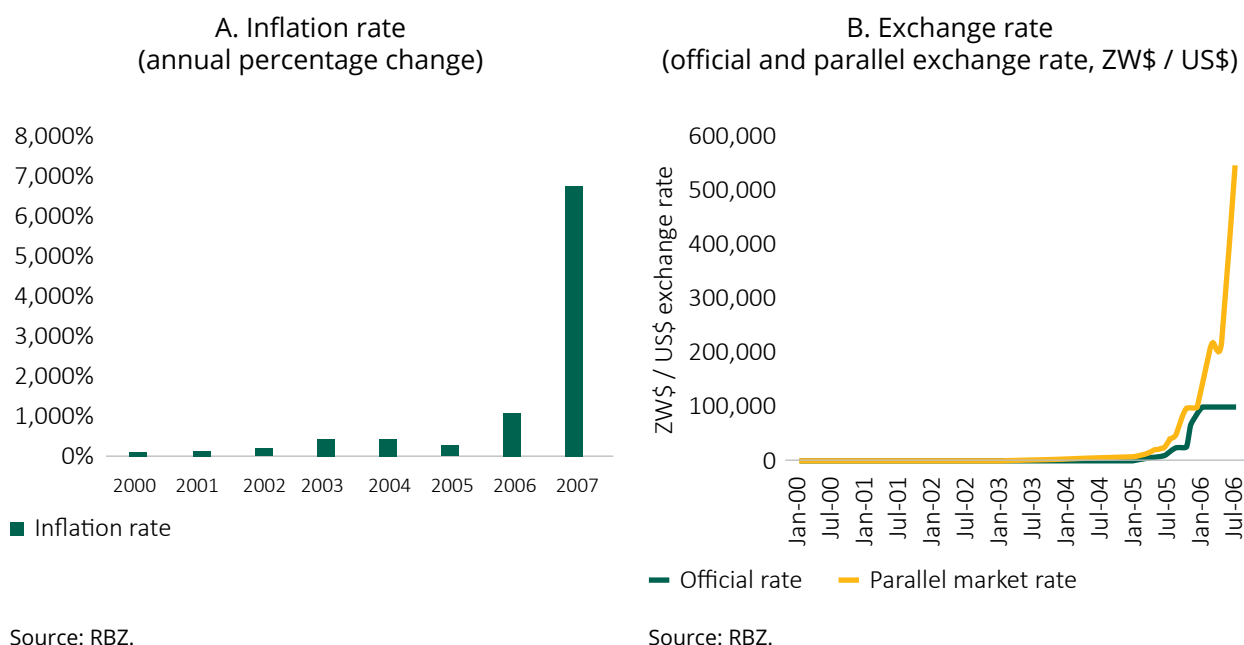
³⁰ Ibid.

³¹ Masiyandima et al. (2011).

³² Mutami (2015).

in the currency, a rapid depreciation and the emergence of a parallel exchange rate (Figure 3.5B). The official exchange rate reached ZW\$69 billion per US\$ in July 2008 (RBZ, 2008).

Figure 3.5: Inflation and exchange rate dynamics



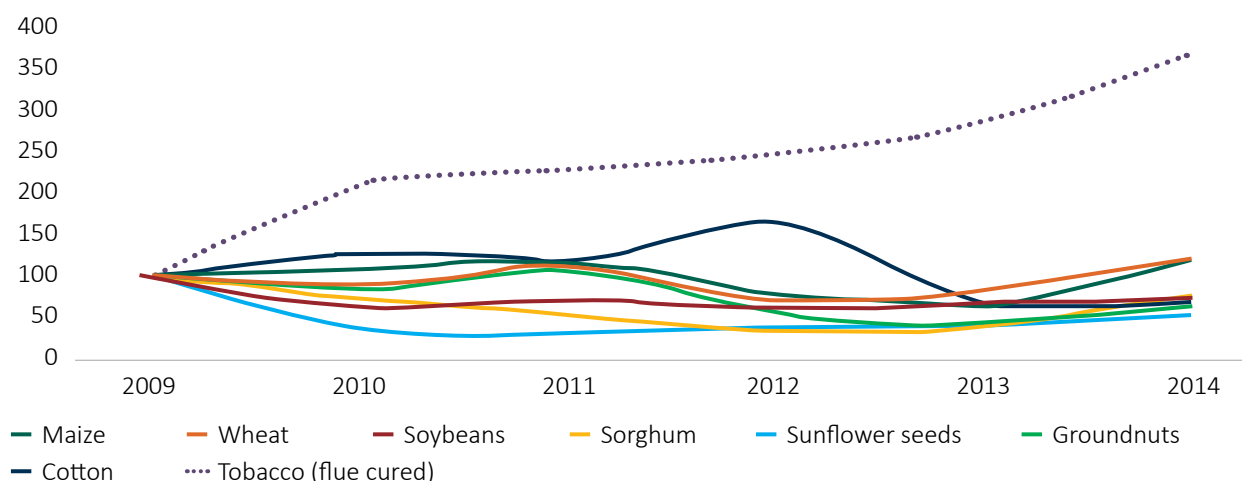
3.2 DOLLARIZATION AND A SHORT-LIVED RECOVERY

With trust in the Zimbabwean dollar severely eroded, and the Zimbabwean economy was dollarized in 2009, restoring some stability – albeit at the cost of an independent exchange rate and monetary policy. The period brought a sense of optimism that enabled Zimbabwe’s farmers to engage in real production under stable prices (in fact, in the hyperinflation period it was more profitable to sell the received inputs than to engage in production). Production picked up in some cash crops such as tobacco and cotton but production of staple crops remained soft. Contract farming was re-launched for some crops, especially tobacco, which recovered significantly after 2009 (Figure 3.6). The particularly strong performance of tobacco is partly due to the fact that the sector managed to successfully restore a contract farming system, in addition to providing small-scale farmers with seeds and fertilizers while offering them advice and oversight. This also applied to cotton, which had recovered, although to a lesser extent than tobacco. Maize production remained relatively flat up to 2014. Agriculture growth averaged 7.4% during the period 2010- 2014 before it started declining from 2015. While dollarization came at the expense of exchange rate and monetary policy independence, the US dollar experienced a relatively soft period between 2009 and 2014 (Figure 3.7A) and Zimbabwean exporters benefited from a competitiveness gain and – at least up to 2011 – favorable global prices for

agricultural commodities (Figure 3.7B). Moreover, smallholders expanded the area under production. Overall, this helped improve the profitability of domestic smallholder farmers.³³

Figure 3.6: Production of key commodities 2009-2014

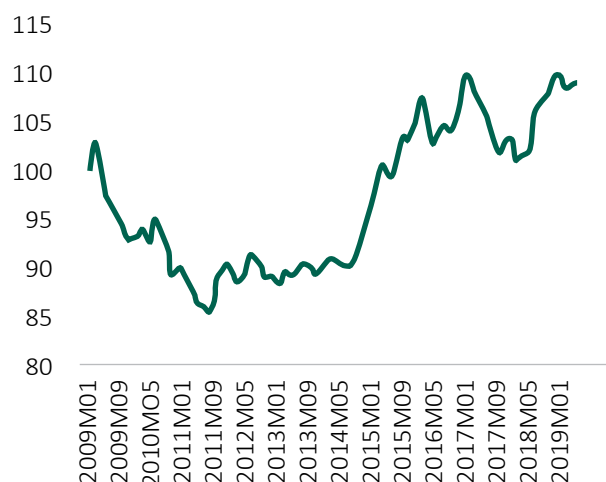
('000 metric tons)



Sources: MinAg and authors' calculations.

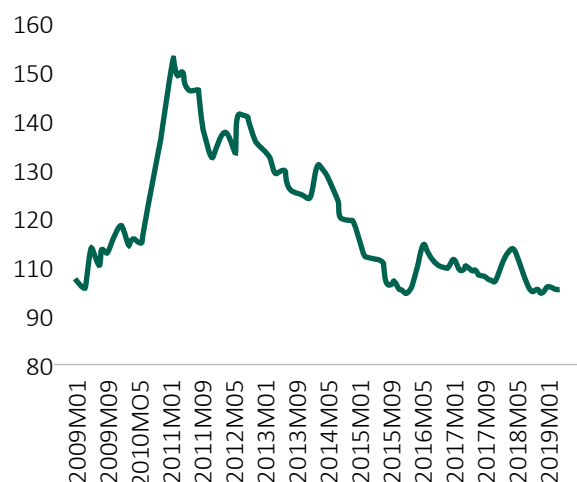
Figure 3.7: Exchange rate and price developments

A. Broad price-adjusted US\$ index (trade-weighted exchange rate, January 2009=100)



Source: Board of Governors of the Federal Reserve System. Note: An increase reflects appreciation.

B. Agricultural commodity price (aggregate index in nominal US\$, January 2009=100)



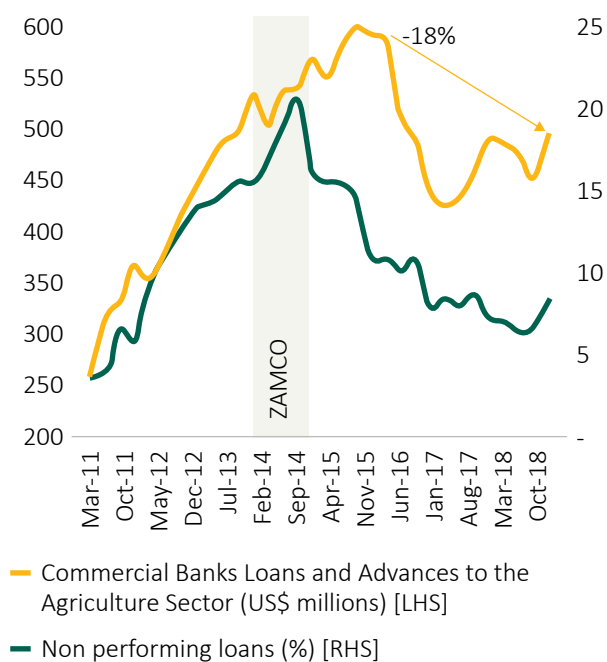
Source: World Bank.

³³ Ibid.

Dollarization created a period of optimism that led to bank lending picking up, but poor loan quality resulted in rising levels of non-performing loans (NPLs). Hyperinflation had decimated banks' balance sheets. Dollarization allowed banks to carefully rebuild them. Coupled with a sense of optimism, bank lending to farmers picked up, albeit at very high interest rates – a reflection of still-fragile balance sheets as well as the high risk associated with farming post the FTLRP. Bank deposits and lending rapidly increased, and net credit to the economy rose to over 10% of GDP during 2011-14. Significant confidence appears to have softened due diligence standards when assessing borrower risk, however, especially in light of the high cost of credit. That stretched the commercial viability of many operations. The risks materialized and asset quality deteriorated. The share of NPLs began to increase steadily, reaching over 20% of the loan portfolio in September 2014 (Figure 3.8A). As the lending was not contingent on any collateral, there was no way to instill payment discipline on borrowers. By 2014 the capital-to-asset ratio dipped below the 10% benchmark (Figure 3.8B), requiring a capitalization of banks. The government created the Zimbabwe Asset Management Corporation (ZAMCO) in July 2014 to take over NPLs. The bailout increased the capital adequacy ratio back to healthy levels.

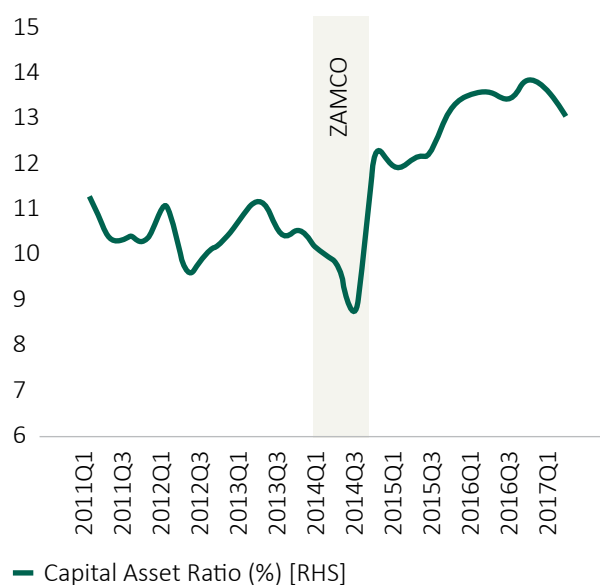
Figure 3.8: Bank lending to agriculture sector and non-performing loans

A. Commercial Bank lending and NPLs 2011-2018
(US\$ millions, LHS, percent RHS)



Source: RBZ and authors' calculations.

B. Capital Asset Ratio
(percent)

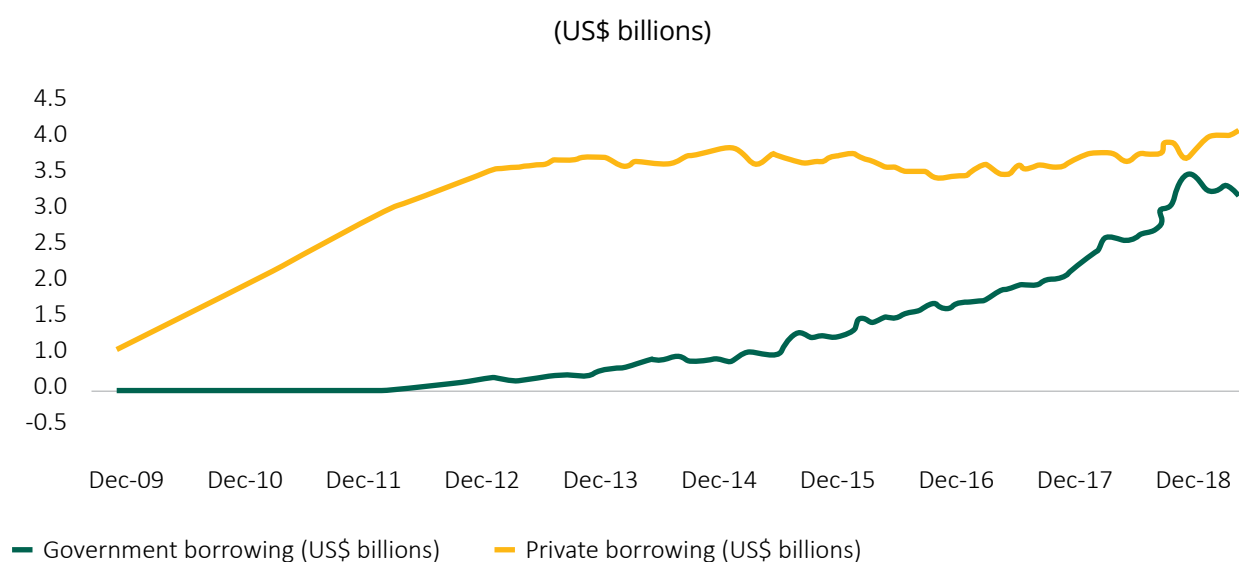


Source: RBZ and authors' calculations.

Given the experience with loan impairments, commercial banks scaled back lending to the agriculture sector and other parts of the private sector. This led to an 18% decline in lending to the agriculture sector by 2018 (Figure 3.8). A study identified many reasons for commercial banks rejecting loan applications by farmers: lack of collateral security accounted for at least 60% of the rejected loan applications; with poor past farmer production performance accounting for 20% of the rejections. For specialized agriculture institutions and contractors, including the AGRIBANK, results show that they were less restrictive on the use of collateral security in farmer loan appraisals. But

poor past loan performance was important to them and accounted for at least 37% of loan rejections from agriculture institutions and 45% from contractors.³⁴ Instead of lending to the private sector (including agriculture) commercial banks started to increasingly lend to the government (Figure 3.9). The government's dependency on borrowing from domestic market was due to severely limited access to international credit to finance a widening budget deficit.

Figure 3.9: Commercial bank lending to government and private sector



Source: RBZ.

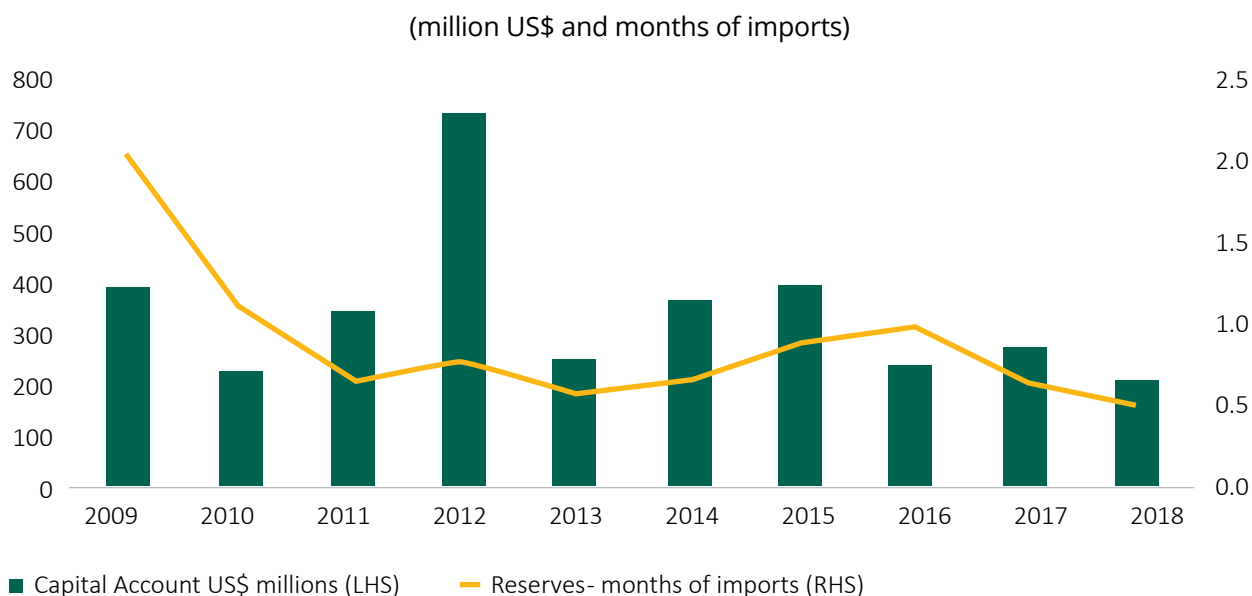
3.3

SECOND ROUND OF QUASI-FISCAL ACTIVITIES: COMMAND AGRICULTURE

The external environment started to become less favorable in 2011 (Figure 3.10). Agricultural prices started their descent from the highs of the commodity super cycle in 2011, providing less uplift to Zimbabwe's terms of trade and farming incomes. From 2015, the US dollar started strengthening. Although this partly offset the lower agricultural prices, it affected the competitiveness of Zimbabwe's exports, in agriculture as well as other sectors. The loss of an independent exchange rate and monetary policy following dollarization meant that Zimbabwe would have needed to make internal adjustments, but most prices—most notably wages – are downwardly rigid. Accordingly, Zimbabwe's real exchange rate appreciated, most notably in relation to its main trading partner South Africa. The appreciation supported imports but limited Zimbabwe's ability to strengthen its economic base through exports. Reserve cover (in months of imports) declined (Figure 3.10). Financing the current account gap was rendered challenging by a lack of foreign capital inflows and exacerbated by the lack of access to borrowing from international finance institutions.

³⁴ Masiyandima et al. (2011).

Figure 3.10: Capital account and official FX reserves



Source: MFED and RBZ.

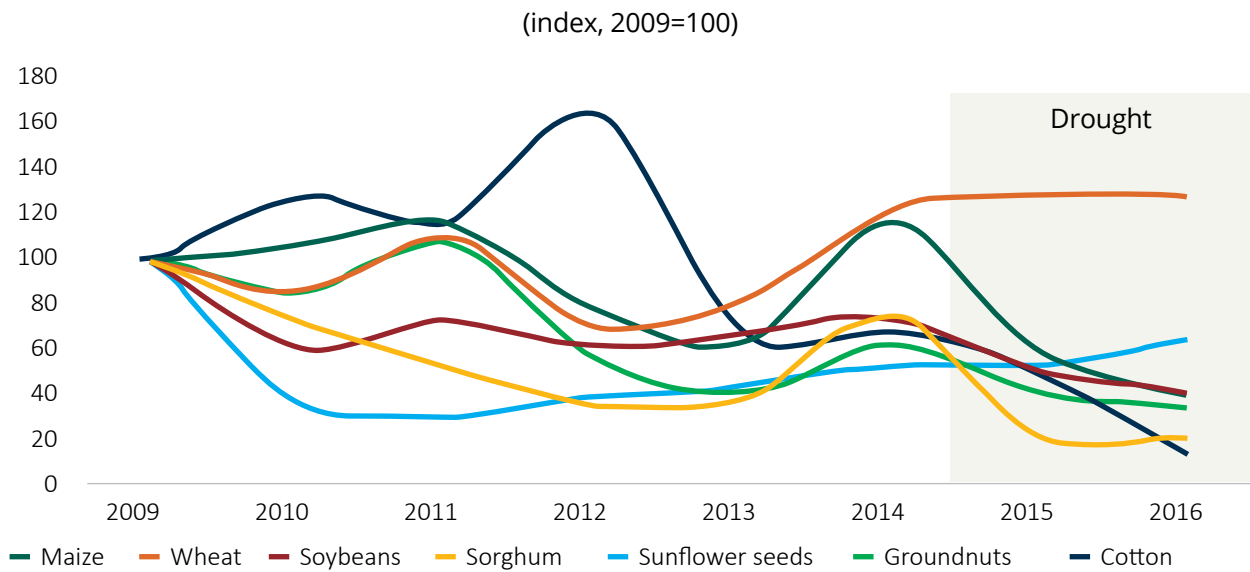
Drought struck again in 2015/16. Yet Zimbabwe barely had buffers to guarantee food security.

Most agricultural production was affected, with the exception of wheat which had remained almost constant (possibly due to winter cropping) and sunflower seeds (Figure 3.11). Most of the indigenous crops (maize, groundnuts, sorghum) that rely on rain were severely affected by drought. The decline in production required additional sources of food, especially maize. Yet grain production in previous years had not been sufficient to meaningfully rebuild the Strategic Grain Reserve. Banks were not lending to support farmers. Balance of payments constraints limited the ability to import maize.

To improve the balance of payments, the RBZ introduced bond notes in 2016. The need for greater maize imports put additional pressure on the trade balance. Having lost its ability to conduct monetary policy in a dollarized economy and mindful of the deteriorating current account balance (and limited financial flows to finance it) the RBZ issued bond notes, officially at par with the US dollar. This was intended to reduce the foreign currency shortfalls and thus stimulate production and exports (and associated foreign currency earnings). The RBZ also reportedly exchanged foreign reserves of commercial banks with bond notes in order to be able to supply the market with hard currency. Nevertheless, issuing bond notes de facto increased the domestic money supply, thus making it all but impossible to maintain parity between bond notes and the US dollar. Another period of parallel market exchange rate emerged, with bond notes informally trading at a discount relative to the US dollar.



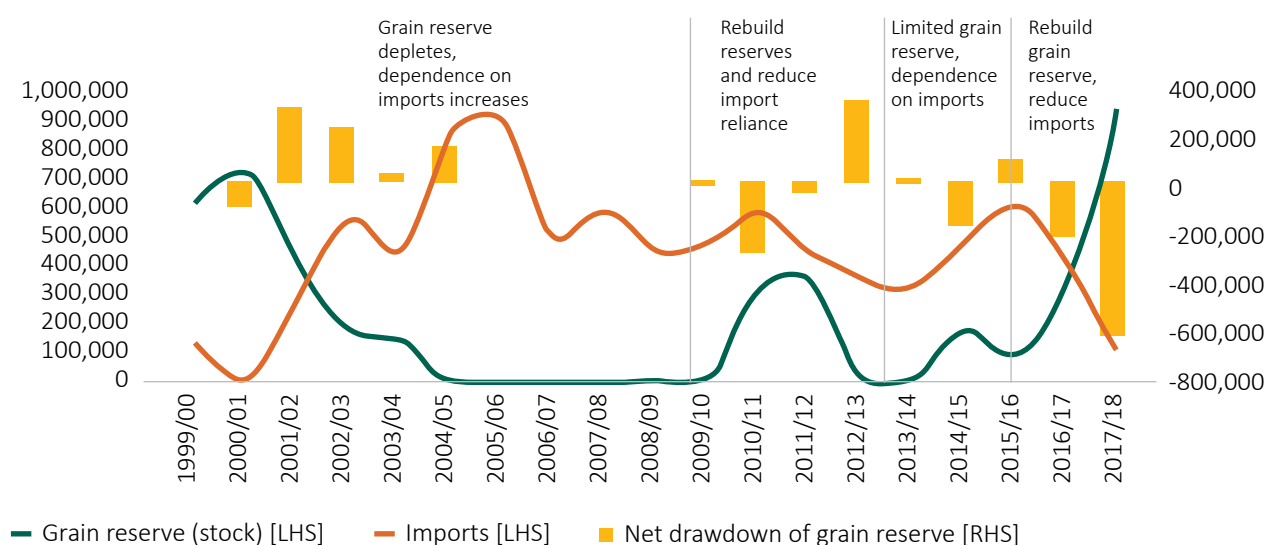
Figure 3.11: Agricultural production



Source: MinAg and authors' calculations.

As the economic and food security situation became more precarious, government stepped in once more with a large-scale agricultural support program, this time known as the **Command Agriculture scheme**. Figure 3.12 summarizes the Zimbabwean dilemma of heavy reliance on imports, and fragile grain reserves over the period previously discussed. The Command Agriculture program did achieve some of government's objectives including : (i) maize production accelerated; (ii) in 2017/18, for the first time, stocks in the grain reserves exceeded pre-FTLRP levels; and (iii) in light of higher production and more comfortable grain reserve levels, import dependence fell.

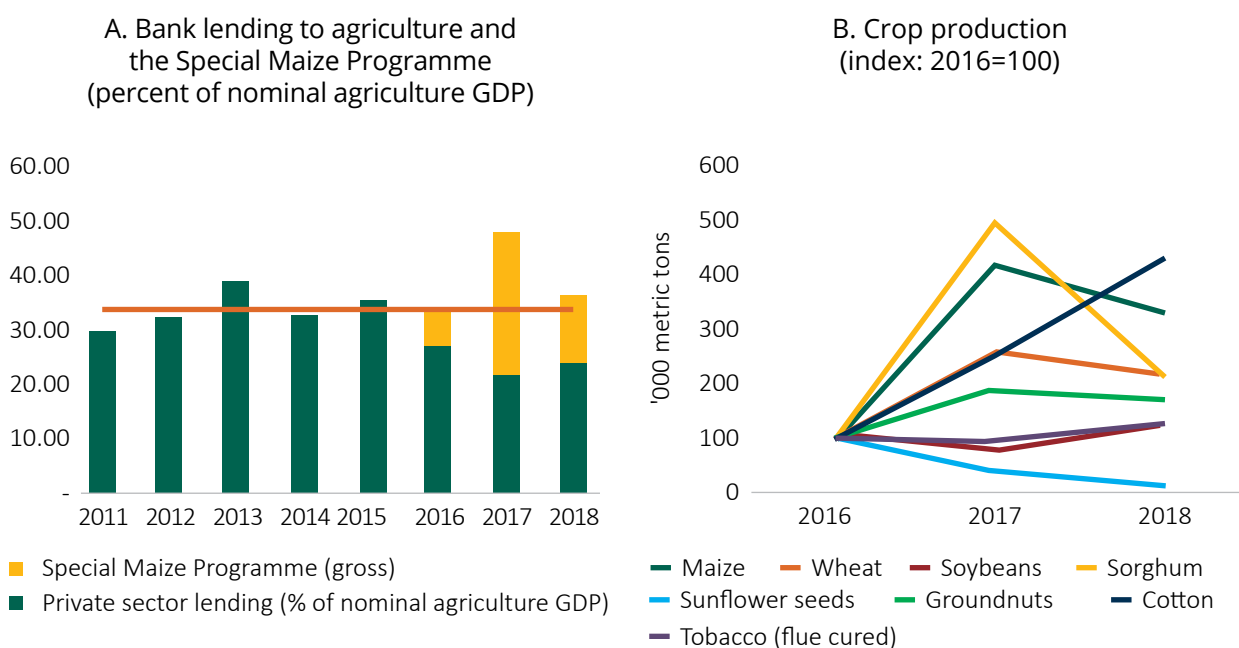
Figure 3.12: Maize production, imports, consumption and change in Strategic Grain Reserve



Source: MinAg and authors' calculations.

Command Agriculture program aimed to address a market failure though the performance is mixed. Figure 3.13A shows that credit to agriculture has averaged about 34% of nominal agricultural GDP. This share has been significantly lower in 2016-2017. Command Agriculture intended to fill this gap, at least partly. Figure 3.13A plots the gross contingency support extended to farmers under the Special Maize Programme (gross outlays in Table 2.5 in Chapter 2). The figure suggests that this could have indeed plugged the financing gap from reduced commercial bank lending – and Figure 3.13B does suggest that it supported a rebound in maize after the drought (although sorghum, which was not supported by the Command Agriculture program, rebounded more from the drought). Broadly, these support the notion that Command Agriculture was at least partly designed to overcome a market failure: the limited ability or willingness of commercial banks to lend to agriculture. Nevertheless, while the program has achieved this goal relatively efficiently in 2015 and 2018, in 2017 government spending appears to have been relatively inefficient, generating less additional agricultural output per dollar spent.

Figure 3.13: Impact of Command Agriculture on production



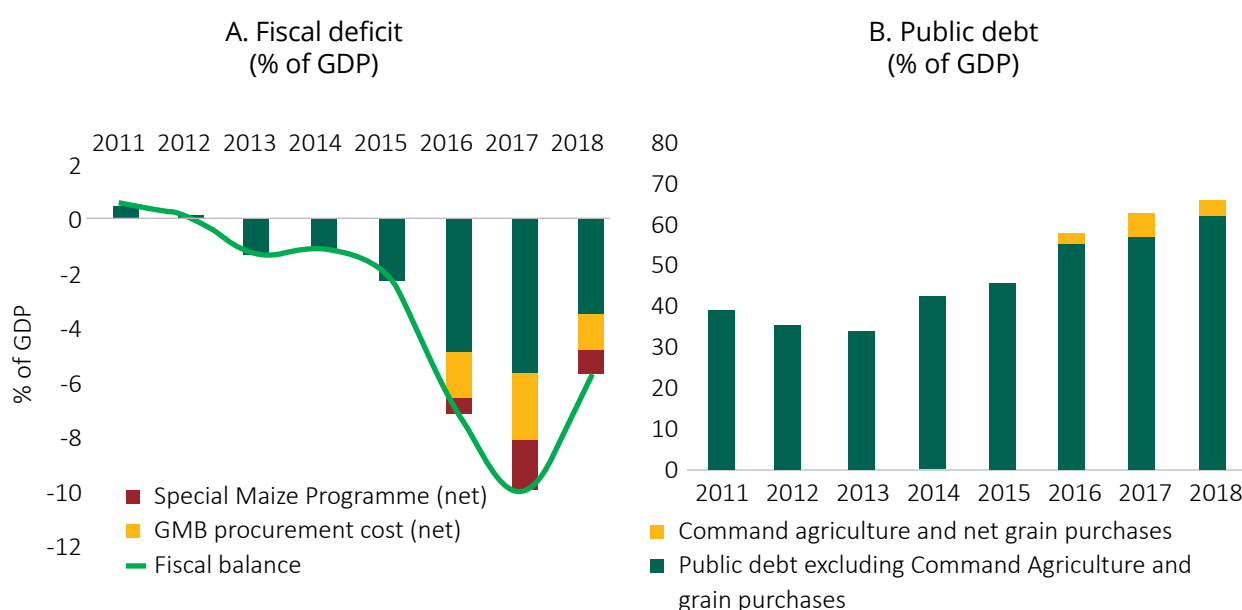
Source: MFED, Accountant General, IMF, and authors' calculations

Source: MinAg and authors' calculations.

The fiscal cost was considerable. The net cost of the Special Maize Programme (taking into account recovery rates, albeit low), amounted to 1.7% of GDP in 2016, 2.4% in 2017, and 1.3% in 2018. The GMB subsidy added another 0.5%, 1.8%, and 0.8% respectively to GDP, as shown in Figure 3.14A. Figure 3.14B puts this in relation to Zimbabwe's public debt stock. These estimates do not take into account crops under the Command Agriculture scheme other than maize, or other expenditures intended to boost agricultural production, as explained in Chapter 2.

The net impact of Command Agriculture is difficult to estimate. Regarding the Special Maize Programme, its effectiveness depends on the impact it had on production. As shown in Figure 3.13, agricultural support, notably the Special Maize Programme, did support agricultural production – without such programs, output and thus revenue would have declined and, given the stickiness of other expenditures, this could also have resulted in a budget deficit.³⁵ Yet it is difficult to disentangle the impact of government support from the effects of the rebound from the drought. Insufficient data was available for the purposes of this analysis to estimate the value for money of the Command Agriculture program, i.e. estimating how much output was paid per unit spent under Command Agriculture. With regard to the GMB, it is not clear to what extent higher procurement prices incentivized production or reduced “leakage” across the border and payment defaults. It is also important to note that some of the costs to GMB derive from government replenishing the Strategic Grain Reserve: not all procured maize was sold. In a sense, the Strategic Grain Reserve is an asset that the government could divest – they are a physical “saving” to the government. The purpose of the reserves is to provide important buffer stocks to Zimbabwe’s agriculture sector, which remains highly vulnerable to drought. This source of resilience holds value too, although it is not easily quantifiable.

Figure 3.14: Decomposition of the fiscal deficit and public debt



Source: MFED, Accountant General, IMF, and authors' calculations

Source: MFED, Accountant General, IMF, and authors' calculations

The high spending on agriculture was again financed through quasi-fiscal activities, coupled with Zimbabwe's third currency reform in 10 years. Inflation accelerated once more. Almost like *déjà vu* of the 2004-2009 period, RBZ lending soared again (Figure 3.15 and Box 3.1), financing government support to agriculture. Dollarization had already been diluted by bond notes. To finance deficits of between 7 and 10% of GDP in 2016 and 2017, the RBZ provided financing in the form of electronic payments – or the RTGS\$. This resulted in a relative depreciation of this de-facto digital currency in relation to the US dollar (Figure 3.15B), reducing the relative value of all electronic payments. This aggravated foreign

³⁵ Rudimentary analysis in a computable general equilibrium model, highly constrained by data, suggests that such effects could have been relatively small, however.

currency shortages, further contributing to import impasses, that were reflected, for example, in fuel queues. The monetary expansion also found its way into RTGS-based inflation; inflation reached as much as 80% in April 2019 (Figure 3.15C), which is high, although stopping short of hyperinflation as experienced during the first round of quasi-fiscal activities in the mid- to-late 2000s.

Box 3.1: The inflation tax

Government debt monetization occurs when it resorts to the central bank to cover its financing needs, largely driven by the budget deficit. By invoking seigniorage, governments intentionally print money as a source of revenue. The literature widely supports the opinion that this procedure should only be used as a last resort, if at all. This is because of the risks associated with debt monetization. In particular, monetary seigniorage as the main source of government revenue can act as a form of inflation tax. Instead of collecting taxes through the traditional channels, issuing a new currency acts as a tax on individuals holding the existing currency by essentially reducing their purchasing power. Additionally, financing government deficits through the creation of money increases the monetary base in the economy which results in the rise of inflationary pressures. If not managed correctly, this could lead to hyperinflation.

Hyperinflation occurs when the increase in money supply is not supported by economic growth. The associated macroeconomic effects can be severe. Essentially, agents in the economy anticipate higher prices in the future and intuitively start hoarding and stockpiling durable goods such as jewelry, equipment and machinery. As the situation worsens, individuals target perishable goods (such as fuel) creating shortages, increasing demand and therefore further raising prices. As the economy declines, unemployment rises, the exchange rate depreciates, and savings are eroded. As government revenue continues to fall, the response is usually to print more money to pay the bills and to try to stabilize the prices, but that only exacerbates the issue.

Given the impact it may have on welfare, there has been a long-standing debate surrounding the use of monetary seigniorage as a form of inflation tax. This ultimately comes down to comparing the pros and cons of inflation tax and the traditional form of taxation. The ability to raise taxes depends on the quality of tax administration. Tax evasion can undermine effective fiscal revenue policy, for example, when the parallel market is sizeable or when payment discipline is low. An “inflation tax”, on the other hand, has much lower administrative requirements. Yet it is not targeted and may hurt the poor disproportionately. There are considerable risks that it could set in motion expectations that cause hyperinflation. Moreover, monetization of debt blurs the line between fiscal and monetary policy, undermining the credibility of the central bank, and thus its effectiveness.

In Zimbabwe in 2016-2018, the economy was suffering from the consequences of drought and raising taxes or reducing expenditures would have further undermined the economy – while reducing expenditures would have been thwarted by large and highly rigid expenditure categories, such as wages. At the same time, fiscal buffers were exhausted, with banks already highly exposed to T-bills. Zimbabwe does not have access to international capital, including from the World Bank and the IMF. Drawing on seigniorage may have appeared attractive, especially in light of the expected economic boost from high agricultural spending. In addition, the “inflation tax” builds over time as inflation accelerates, providing expenditure immediately while delaying the cost, which too may have

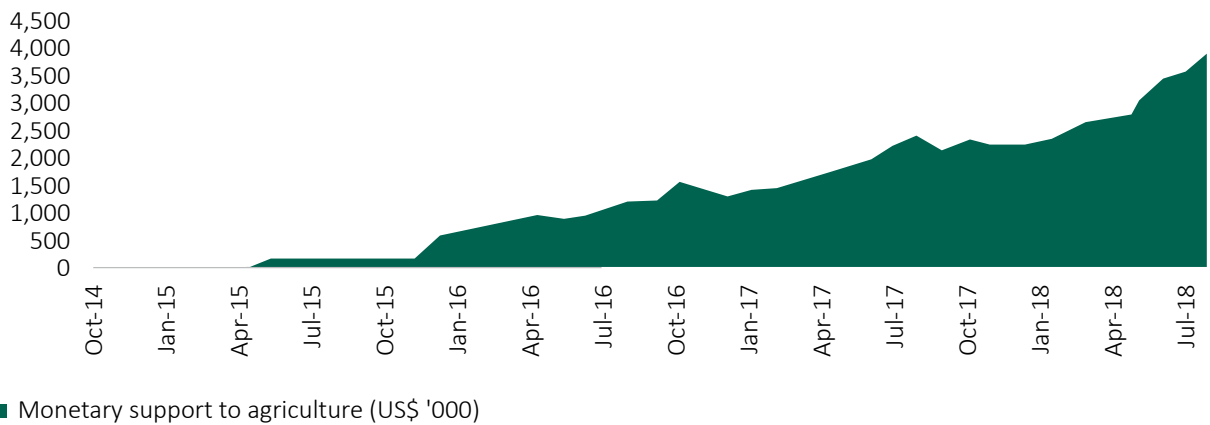
appeared attractive in times of drought. Inflation did not turn into hyperinflation in this period – but this is partly because the “inflation tax” was averted with a fiscal tax: a 2% transaction tax in 2018. Strengthening macroeconomic buffers to avoid reliance on inflation taxes will be critical in future.

Sources: Calvo, G. A., & Leiderman, L. (1992). Optimal inflation tax under commitment: Theory and evidence. *The American Economic Review*. 82:179-194.

De Fiore, F. (2000). The optimal inflation tax when taxes are costly to collect. *European Central Bank Working Paper No.38*.

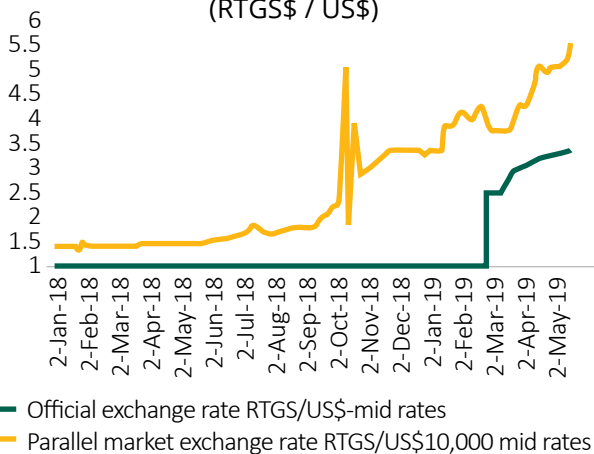
Figure 3.15: Monetary expansion, inflation, and parallel exchange rates

A. RBZ lending, 2014-2018 (US\$ '000)



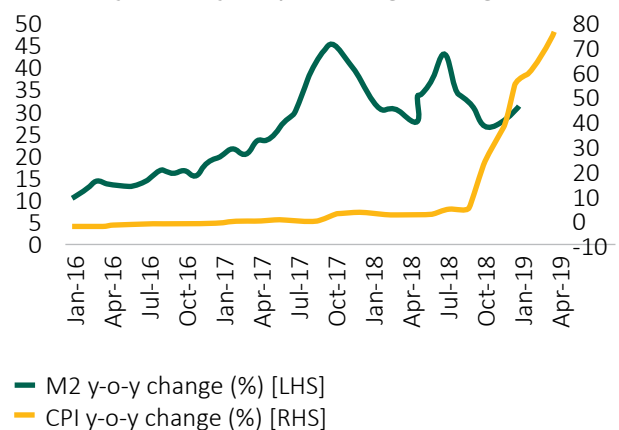
Source: RBZ.

B. Official and parallel exchange rates (RTGS\$ / US\$)



Source: RBZ and WB staff estimates.

C. Money supply and consumer prices (year-on-year percentage change)



Source: RBZ, ZIMSTAT and WB staff estimates.

In late 2018 and 2019, government aimed to stabilize the fiscal position. Yet the planned reduction of agricultural expenditure could not be sustained for long. Acknowledging the need to reduce the deficit and borrowing from the RBZ, the government introduced a higher tax on all electronic transactions in late 2018. This helped establish some credibility and Zimbabwe managed to regain some monetary policy authority, by making the RTGS\$ legal tender. Yet the continued pressure from Command Agriculture on public spending, as described in Chapter 2, makes restoring macroeconomic stability difficult. Reforming the Command Agriculture program and reducing its cost will be critical for Zimbabwe's economy and citizens. Chapter 4 offers some high-level policy recommendations in this regard.



CHAPTER
FOUR

Policy
Discussion

The previous chapters have provided an overview of the way the Zimbabwean fiscus supports agriculture. This chapter discusses possible policy implications. Evidence from across Africa suggests that public spending can support agricultural productivity - but not all spending does (Box 4.1). Faced with emergencies, such as drought, Zimbabwean spending in agriculture has become reactive, resulting in second- and third- best policy choices. It will be important to regain agency for first-best policies. Broadly, this discussion on recommended policies can be grouped in two categories. One relates to expenditure specifically linked to what can be learned from the discussion in Chapter 2. The chapter has shown that Zimbabwe's precarious economic situation – which has its origins in the FTLRP – will continue to put pressure on expenditures and there is often urgency for spending, especially during periods of drought. Naturally, this makes it more difficult to carefully plan for spending or to ensure that it is efficient. At the same time, such emergency spending is seldom fiscally sustainable, as Chapter 3 has shown. This is why a discussion around the quality of agricultural expenditure cannot be delinked from recommendations to reduce Zimbabwe's broader economic vulnerabilities, in agriculture and beyond.

Box 4.1: Insights from agriculture PERs from across the continent

Improving public spending on agriculture can enhance productivity. Experiences from countries around the world show that investments in public goods, combined with sound policies and institutions have driven agricultural productivity growth. Investments in rural public goods that strengthen markets, expand water access, and develop and adopt improved technologies have enormous impact on growth and productivity. Despite high returns from such investments, Sub-Saharan countries tend to underinvest in them.

Spending choices make a difference. Increasing the volume of public spending in agriculture will be important, but not sufficient. Different categories of spending have different rates of return. Evidence shows that high returns are from specific types of spending, such as investments in core public goods related to technology generation and diffusion, market links, and rural infrastructure. Particularly, agricultural R&D has high returns, averaging 43% in developing countries and 34% in Sub-Saharan Africa.

Not all public spending is productive. Public spending may be unproductive or even reduce the productivity of other spending for two basic reasons. First, governments sometimes spend on things that are not public goods. They tend to be inefficient suppliers of private goods, and when they enter these markets, there is a serious risk of displacing the private sector. Second, even when there are clear failures in particular markets, government spending will not necessarily improve the situation. Inherent characteristics of government interventions can sometimes lead to “government failures,” which may exacerbate the original problems caused by the market failures and produce unintended adverse ancillary effects.

The returns to subsidies are low and variable. Evidence on fertilizer subsidy schemes show that crop response rates of smallholder farmers are highly variable and usually low because of the inability to use fertilizer efficiently and profitably due to low water availability and poor soil, chronically late deliveries of fertilizer, poor management practices, and insufficient complementary inputs to enable farmers to obtain higher rates of fertilizer efficiency. Subsidies are unlikely to address their multiple objectives effectively. It is often argued that subsidizing fertilizer is desirable both to boost agricultural production and to help poor farmers. Yet there is strong evidence that most of the benefits do not

go to poor farmers (targeting is regressive with respect to asset wealth and landholding size), and the gains in overall food production have been transitory and much smaller than the costs. Where subsidies continue to be used, they should at least be reduced to a modest amount in national agriculture budgets, with a clear exit strategy, and combined with complementary expenditures.

Source: Goyal, A., and Nash, J. (2017). Reaping Richer Returns: Public Spending Priorities for African Agriculture Productivity Growth.

One overarching recommendation relates to fiscal consolidation. Fiscal space is a critical source of resilience, allowing economies to weather shocks – including but not limited to drought. Zimbabwe has committed to fiscal consolidation, a critical ingredient of its macroeconomic stabilization program and re-engagement strategy. In the absence of external financing and opportunities for raising additional tax revenues, fiscal consolidation relies mostly on significantly improving the efficiency of spending on the public sector wage bill. A clear roadmap to reform and reduce agricultural spending is but one of the steps required to strengthen fiscal resilience. The proposed options below sketch some of the high-level policy recommendations for agriculture specifically. They chime with earlier studies (see, e.g. Annex 2) and are in the process of being developed in more detail through an agriculture visioning exercise in partnership between the government and the World Bank

4.1

POLICY OPTIONS TO REDUCE THE COST OF THE COMMAND AGRICULTURE PROGRAM

1

Reduce the price subsidy in GMB procurement and sales

The wedge between the cost of supplies to GMB and sales prices constitutes a large subsidy that should be reduced. GMB procurement prices should be set close to import parity prices. As significant stocks have been built in the Strategic Grain Reserve, fiscal pressures from procuring buffer stocks will diminish until the next drought requires the drawdown and rebuilding of stocks. To limit the cost of GMB procurement, setting the right price is critical. Until 2018 the subsidy cost was mainly driven by the difference between the procurement price (US\$390/ton) which was higher than import parity, and the average sales price of US\$243 and the large volumes procured (over 1 million tons). In 2019, with low expected procurement, the subsidy will be driven by the difference between the cost of imports and the lower price at which the GMB expects to sell in the domestic market. It is recommended that the government continue to set procurement prices closer to the expected import parity price in international and regional markets. In light of high inflation which makes it difficult to set such a price in RTGS\$, GMB procurement prices should be set in US\$ and then converted into RTGS\$ at the market rate.

Sales prices need to be raised, but impacts on the poor need to be mitigated. As a first step, sales prices should be adjusted upward to match market prices in neighboring countries, notably South Africa. This will avoid incentives to illegally sell maize across borders. As a second step, the implicit

subsidy to millers and consumers from a sales price that is much below the procurement price, should be reformed. It is currently an untargeted subsidy to maize consumers. Since maize is Zimbabwe's staple crop, revising the sales price would need to be accompanied by additional measures to cushion the impact on the poor.

In the medium to long term, the market for maize needs to be gradually liberalized with farmers free to sell their produce where they get the best prices. In the case of the Special Maize Programme, farmers are currently required to sell to the GMB. This was not a major constraint as long as the price for maize was US\$390/ton, which was substantially above the free market and world price. With the introduction of the RTGS\$ and the uncertainty about the maize producer price, farmers should be required to sell to the GMB only the quantities corresponding to the value of inputs supplied. For any production above this quantity, farmers should be free to sell their produce where they get the best prices, as should farmers not participating in the Special Maize Programme.

2

Reduce public spending on private goods and reform agricultural finance

Agricultural spending should focus on financing public goods. Long-term growth in agriculture requires investment in essential public goods. Expenditures on essential public services such as agricultural research, extension and animal disease control, as well as on construction and maintenance of essential infrastructure, benefited from modest growth in spending, but remain inadequate compared to needs. In contrast, expenditures for private goods, including inputs, equipment, and on-farm irrigation, increased dramatically. There is an urgent need to reduce expenditures on untargeted subsidies and shift funds to essential support for public services and on infrastructure. The financial sector (such as banks, micro-credit companies, and leasing companies) should eventually take over the role of private agriculture finance. Credit could also come from input suppliers, processors or traders through some form of contract farming, or through local savings clubs and associations.

Contract farming is well understood and widespread, particularly in tobacco, and, to a lesser extent in grains, cotton and livestock. In order to promote this, some of the main concerns of companies running contract farming schemes need to be addressed. These include reform of the cumbersome legal process in the case of contract breaches; the option to use currencies other than RTGS\$ to denominate contracts if the buyer and seller agree; and encouraging associations of small and communal farmers that could facilitate their participation in contract farming. Successful contract farming also needs strong support and supervision of participating farmers; a mechanism to cushion repayment problems in years of poor weather; and efforts to reduce "side selling". Specific actions could include strengthening the extension and other support services to address technical and other production problems at an early stage; introduction of weather-related insurance to cover the higher levels of default in bad years; and moving forward with the GPS system currently under development for tobacco growers to better monitor sources of production and reduce side selling, and when proven successful, apply it to other programs.

In the medium to long term, Zimbabwe should aspire to a well-functioning commercial agriculture sector that should be able to finance most of its working capital and capital expenditure needs through lines of credit with banks. However, this is hampered by the lack of legal title to the land

and other immovable assets, non-performing legacy loans,³⁶ and limited opportunities to use produce as collateral. To address these challenges there is a need to: allow the 99-year lease that has been introduced to be used as collateral for loans from commercial banks; partially or completely write off loans that have been non-performing for some time; provide banks with the lists of farmers with a good and bad repayment record under the Command Agriculture program; promote the establishment of a network of certified warehouses, and address shortcomings in the current Warehouse Receipt Act (Act 13/2007) that limit its effectiveness.

3

Improve targeting and the provision of inputs, and reduce defaults

Strict criteria are necessary for eligibility for support under the Special Maize Programme. Farmers in default should generally be excluded from government support. The program should focus on those farmers that have the necessary irrigation and other infrastructure, suitable equipment and proven technical skills, and a proven production capacity of at least 5 tons/ha. Farmers who have not fully repaid the costs of inputs should be excluded unless there are national emergencies, in which case a part of their dues could be rolled over. There also needs to be strong supervision and monitoring of participating farmers, strengthening of extension and other support services to address technical and other production problems at an early stage, and introducing weather-related insurance to cover the high levels of default in bad years.

Use of e-vouchers would improve targeting and thus reduce the fiscal cost. International experience suggests that often the best way to provide subsidies and support to farmers is through the appropriate use of ICT, and in particular e-vouchers. E-vouchers have been tested in Zimbabwe and other countries in the region, to provide inputs or commodities. There are a number of variants that include coupons, smart cards and transfers using mobile phone services. In Zimbabwe, the widespread use of mobile payment systems and the use of smart cards by agencies such as the Food and Agriculture Organization, the World Food Program and UNICEF are well established. A suitable system could be extended to cover inputs under the presidential input scheme, the tobacco input revolving fund and the Special Maize Programme. The electronic voucher also creates opportunities for other services that can enhance the efficacy of the program, such as soil testing and extension services. To further assess the practicalities of implementing such a system, there is a need to move forward in consultation with input suppliers, smart-card providers and cellphone companies, with the creation of appropriate e-voucher schemes for agriculture inputs.

There is also a need to simplify logistics and enhance flexibility. Farmers need to be empowered to make their own choices about which crops to grow, which inputs to buy and what variety of livestock to invest in, keeping in mind market opportunities and risk. For this to happen, it would be best if the government withdraws from the task of supplying packages of inputs to individual farmers, which is a logistical challenge. In most areas of Zimbabwe there is a strong network of agro-dealers who supply inputs, machinery, animal feed and growing stock, particularly day-old chicks. Farmers receiving support through the various programs should be given maximum flexibility to choose inputs most suited to their needs. These could be different types of seeds, fertilizer, chemicals, animal feed, or growing stock.

³⁶ Loans outstanding to agriculture amount to about US\$1.2 billion, most of which are old.

4.2

POLICY OPTIONS TO REDUCE STRUCTURAL PRESSURES ON AGRICULTURAL SPENDING

Agriculture is likely to continue contributing to severe macroeconomic dislocations unless the legacy of the early 2000s is addressed. Faster growth that is led by the private sector is needed to strengthen the resilience of Zimbabwe's economy. This is not restricted to agriculture alone, but the agricultural sector is still the backbone of the economy and given its importance to food security, it will likely hold the key to a sustainable recovery in Zimbabwe. The following are some of the critical ingredients to support agricultural productivity. More research into this will be undertaken under the ongoing joint initiative between the Government of Zimbabwe and the World Bank to create a long term vision for the future of food and agriculture.

1

Strengthen security of tenure

Improving security of tenure is important to drive allocative efficiency in land and improve credit markets. The decline in tenure security, which has been an inherent part of Zimbabwe's land reform programs, has led to underutilization of land, which has translated into reduced agricultural output, reduced supply of industrial feedstock, a decline in agricultural exports, and fewer investments in farm land. Weak tenure security also means that banks are unwilling to lend to many farmers. Credit is important for agricultural productivity and is an important source of resilience. Developing security of tenure requires creating a comprehensive land administration system and finding a mechanism for valuating and compensating farmers for acquired and redistributed farms.

Although Zimbabwe has historically had a strong manual land administration system with high standards, it is a paper-based system with high transaction costs and outdated procedures. Currently, there is no comprehensive cadaster in place. Cadastral processes in Zimbabwe are costly, time consuming, and lack comprehensiveness. Various private surveyors have undertaken bits and pieces of cadastral work in the commercial farming sector, while the Department of the Surveyor General is carrying out cadastral surveys for the new leaseholds (A2 farms). However, surveying these A2 farms has been sporadic, which results in high costs per surveyed parcel (public surveyors charge US\$800 per unit, compared to private surveyors, who charge US\$4,000 per unit). Improving the cadaster system by integrating cost and efficient systems for thorough land surveying and registering all types of tenures, is key. The government should adopt a digital land information system that allows online access to records, maps, and other services. Again, although the Deeds Registry has high standards, it too is limited by an inefficient operating system, as it is run manually without a digital link to the cadaster. A comprehensive information management system should be utilized for all land administration, including the cadaster and deeds registry systems which would enable a streamlined administration system, including property taxation, land acquisition, regional and urban planning, and land use management.

Second, developing a mechanism for valuation and compensation of acquired and redistributed farms is important to rebuilding trust between the government and affected or emerging farmers. Paying compensation to displaced farm owners is one of the most challenging land policy issues for Zimbabwe. However, the government's Valuation and Estates Department is in the final stages of inspecting the last of the acquired commercial farms. Once the valuations have been completed, the government would be able to determine their "global" valuation figure, which it would then need to provide to the Compensation Committee. Once this figure has been determined, the Compensation Committee, rather than considering each farm on a case-by-case basis, as has been done in the past, could apportion the global compensation figure. This would allow the Compensation Committee to determine the amount of the compensation offer for each farm based on the Global Compensation figure and the individual government valuation for each farm on a pro-rata basis. The compensation value needs to be balanced with the current macroeconomic landscape and potential fiscal burden. Balancing rentals and levies with the administrative expenses of such efforts is important to avoid damaging the fiscus. Resolving the question of valuation and compensation would reinstate security of tenure and give landholders the confidence needed to make long-term investments and banks the confidence to accept 99-year leases in FTLRP areas as collateral, which would improve access to finance. In this regard, collaboration between banks, farmers and the government is key to developing sustainable policies.

2

Investments are needed to improve agriculture's resilience to climate change

Zimbabwe's agriculture sector is highly exposed to the adverse effects of climate change. Zimbabwe loses annually on average 7.3% of its agriculture GDP due to drought.³⁷ Resilience of farmers to manage and cope with climate change is poor. Decline in government spending on fundamental enablers of agricultural productivity³⁸ has significantly reduced the resilience of the sector. Future climate change projections indicate that Zimbabwe will become hotter and drier – with average temperatures increasing and rainfall³⁹ declining. Government has a vital role to play by investing in public goods that enhance resilience – such as agriculture R&D, access to water, climate information systems and mainstreaming climate change considerations in policies, among others.

Irrigation is an important source of resilience. Climate change is expected to have differentiated impacts on yields in rainfed and irrigated agriculture (Figures 4.1 and 4.2). In the agriculture sector, although irrigation improves productivity and is an important source of resilience in the face of droughts, it is often insufficient to cover the ongoing operational and maintenance costs of irrigation infrastructure. Thus, it is important that efforts be concentrated on supporting farmer-led irrigation interventions and using small locally and/or regionally produced systems such as drip and center pivot irrigation. The draft national irrigation development plan's irrigation infrastructure recommendations are guided by a need to promote energy and water efficiency (given frequent droughts), and identified 7 technologies, that are ideal, based on soil type, slope and crop: center pivots, linear pivots, hose reel/travelling gun, semi portable sprinkler, micro jet, drip, and flood irrigation systems.

³⁷ Zimbabwe Agriculture Sector Disaster Risk Assessment (2019).

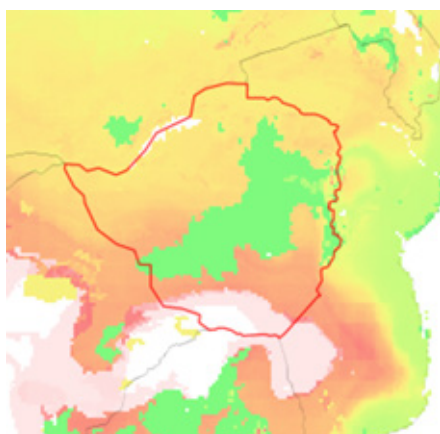
³⁸ Zimbabwe Climate Smart Agriculture Country Profile (2018).

³⁹ Ibid.

To exploit the potential, the government has embarked on a 25-year phased irrigation development master plan, aiming to not only increase the irrigated area but to also correct historical imbalances in land, water and irrigation technology utilization among the different farming sectors in the country, whether communal, old resettlement, A1, A2 or plantation farmers. The draft National Infrastructure Development Master Plan aims to ensure that the irrigation potential of 2,500,000 hectares of land is fully functional by the end of the 25 years. Also envisaged by the plan is that all irrigation infrastructure, once installed, should remain functional through proper and timely operation and maintenance by competent and knowledgeable operators. Private, on-farm infrastructure should eventually be financed privately.

Figure 4.1: Climate change is expected to have differentiated impacts on the yield of rainfed maize...

(percentage change in yields by 2080)



% Change of Crop Yield Projections



< - 60%

> 80%

Source: World Bank.

Figure 4.2: ... and irrigated maize production

(percentage change in yields by 2080)



% Change of Crop Yield Projections



< - 60%

> 80%

Source: World Bank.

Short term (year 0-2): In this period, focus is on rehabilitation of irrigation schemes in all agricultural sectors and completion of ongoing development projects. The aim is to ensure that all land equipped with irrigation infrastructure is fully functional and to expand the area equipped and functional by 201,000 hectares to 331,000 hectares. In this phase, the introduction of self-propelling irrigation systems such as the linear pivot, center pivot and travelling guns, will be introduced to all farming sectors to improve efficiencies and to cut down on labor costs. Government departments responsible for irrigated farming will also be restructured, retooled and empowered to offer services to farmers.

Medium term (year 3-10): In the medium term, focus will be on the expansion of existing schemes and development of new schemes to fully utilize water stored in all existing dams with the intention of increasing the area equipped and functional by 808,000 hectares. At the end of

the period the total irrigated area is expected to be 1,139,000 hectares. During this phase, use of technologies such as micro sprinklers, drip and micro jets will be intensified, particularly in horticulture production and plantation crops such as coffee, bananas, macadamia nuts, and grapes.

Long term (year 11-25): In the long term focus will be on the development of large irrigation schemes using dams currently under construction, proposed dams and utilization of the Zambezi River and the Kariba Dam to increase the area equipped and functional by 1,361,000 hectares, thus bringing the total area irrigated to 2,500,000 hectares. This calls for collaboration with international development, technical and financing partners in the planning and implementation of the irrigation schemes.

3

Foster skills and experience

Developing the skills needed to address Zimbabwe's current economic and agricultural challenges is important. For example, the economic context has affected the land valuation system, and capacitating it with education, standards and tools can help to bring about tenure security while developing human capital to improve the availability and reliability of land market information. This is important, because land valuation limitations have a negative impact on revenues, and thus, the provision of local services.

There is a need to invest in developing the skills of farmers to respond to the needs of the changing agriculture food system throughout the agriculture value chain. Consumers' food demands have evolved in local, regional and global markets. Farmers need to have the skills to address the demand by applying improved production practices and technologies throughout the food value chain. Climate change poses a challenge to farmers to adapt and mitigate its impacts. Application of climate-smart technologies that encompass the triple benefits of productivity, adaptation and mitigation, is critical to address the challenges. Equipping farmers with the knowledge and skills to address the effects of climate change is crucial. These will make a significant contribution to improving labor productivity in agriculture as well as in strengthening its linkages with the rest of the economy.

Improving skills requires adequate funding for agricultural education.⁴⁰ Zimbabwe has an educational system, post-secondary and tertiary, that serves the agriculture sector. However, resource constraints are a major issue. All the colleges and universities face resource constraints and compete for the same national and international funding. Therefore, interaction and cooperation between the colleges and universities are limited. Due to resource constraints, quite a few programs have been suspended. Since 2010 many vocational schools were converted into colleges to educate staff for the extension services in the new sector structure. Sometimes, quantity was set above quality. There is an encouraging movement toward training in commercial agriculture and in high value crops (horticulture), however, this needs to be further strengthened to emphasize farming as a business in the small-scale farmer context.⁴¹ There is a need to strengthen cooperation between the private sector (agribusinesses) and public education to enhance relevance of the training programs, to build

⁴⁰ Background paper to support the preparation for World Bank. (2019).

⁴¹ Findings Note excerpted from Zimbabwe: Agricultural Sector Assessment Study, Final Report, Zimbabwe Multi Donor Trust Fund (December 2010).

links between students and potential employers and source funding. In tertiary education, increases in resources to agricultural programs and possibly competitive grants to facilitate cooperation in the country and region, following the model of the African Centers of Excellence program of the World Bank, could be useful options.⁴²

4

Promote effective Agricultural Knowledge and Innovation Systems

Under a new dispensation, government began in late 2018 to put in place measures to address a number of the spending quantity and quality concerns examined above. Its two-year TSP and 2019 Budget offer some good measures with substantial increases in funding for AKIS functions of the MinAg, a brake put on quasi-fiscal funding of the government's support for agriculture, an increase in irrigation infrastructure investment, and a fiscally prudent adjustment to administrative prices for public procurement (especially by the GMB), of agricultural commodities.

For the AKIS functions, the focus could be on building on the home-grown efforts of the past year during the rapid results initiative to mobilize discussions across silos and identify some of the key building blocks of a healthy AKIS, upon which capacity building efforts can concentrate: domestic resource mobilization, rapid needs assessment updating, short-term and high impact research program definition, and revitalization of competitive research funding mechanisms.

Improving the quantity and quality of extension services is crucial. Government will need to invest in technical training of extension workers in new skills that are relevant for current agriculture and food systems. In response to Zimbabwe's current agriculture sector structure, there is a need to improve the mobility of extension staff so that they reach farmer. Digitization can enable advisory services to reach more farmers more effectively and can also provide early warning information more rapidly. Zimbabwe's wide cellphone coverage and existing digital platform for payment services offer ample opportunities for extending advisory services.

4.3

BROADER POLICY OPTIONS ON FISCAL MANAGEMENT

The PBB approach should be maintained. Implementing PBB in agriculture is a positive step toward improving the quality of public spending and the MinAg has produced PBB plans since piloting the approach in 2017. Budget plans need to include performance indicators for the Command Agriculture program, the largest spending item. In addition to PBB plans, the MinAg would need to prepare performance reports in the PBB format to review actual spending and link it to performance against expected results. The quality of the performance indicators should periodically be reviewed, updated, and improved.

⁴² World Bank. (2016). Media release: World Bank to Boost Quality Training and Research Skills among Higher Education Institutions in Eastern and Southern Africa.

Reducing institutional fragmentation could further enhance the quality of public spending.

Sizable spending on the Command Agriculture program is only partly under control of the MinAg (through monitoring and control mechanisms and GMB operations). In addition, up to a quarter of agriculture spending – prior to the Command Agriculture program – was financed by development partners and information on overall amounts and sub-sector allocations is not systematically monitored, giving rise to potential overlaps. To remedy that, external partners' current off-budget spending that occurs in areas in which the government is also active, needs to be systematically reported on and incorporated into the MFED budget management information system. The anticipated MFED Aid Information Management System (AIMS) initiative (with national budget-wide scope, including agriculture) is an avenue to fix this, and will contribute to better coordination of resource allocation across the government and between external partner sources in support of national priorities.

Improve budget planning and expenditure controls. Significant deviations between the approved budget on agriculture and outturn will need to be reduced significantly to good practice levels of up to 10-15%. The government may consider setting aside contingency funds to account for uncertainties related to natural disasters. Communicating the medium term estimates and the ceilings will be important in managing the expectations of the public at large and farmers in particular, on the availability of public resources for agriculture programs, especially in the context of fiscal austerity. These expenditure ceilings should reflect the gradual reduction of public support for agriculture, as envisaged in the TSP.

Expenditure should be more transparent. The implementation of the real-time and computerized Treasury management system IFMIS from 2011 and the shift to PBB several years ago have provided the MFED with significant building blocks for more transparent implementation and management of government spending. However, the onset of unplanned, quasi-fiscal spending on agriculture over 2017-19 was accompanied by 3 years of such expenditure not being posted, as had previously been the practice, to administrative accounts in standard MFED public documentation (e.g. the Blue Books).

Strong parliamentary oversight is critical. With the unplanned spending of 2017-18 not being reported in standard MFED public documents that are used to report on fiscal outcomes, it was difficult for Parliament to perform its oversight function during this period.

Measuring impacts is critical for efficient spending. Stats agency ZIMSTAT is in the process of making public the data from the Poverty, Income, Consumption and Expenditure (PICES) household survey, including that of the agricultural productivity module. The government therefore has a useful statistical base for quantitative analysis of the impacts of various types of public spending – e.g. to improve access to production inputs such as fertilizer and improved seed, for public extension, public support for access to mechanization services and public pasture lands – on the intended outputs of profitable and increased production.

4.4 AREAS FOR FURTHER RESEARCH

There are a number of areas that this PER could not fully cover but that deserve further study:

1 *Value-for-money analysis*

The original scope for this PER included an analysis of the micro-level effects of the various government support activities (such as extension, provision of mechanization services, input supply through the presidential input scheme or the Command Agriculture program) on productivity at the farm level. However, the relevant household surveys (notably the 2017 PICES survey's agricultural productivity module) was not available in time for this study. To get a more rounded understanding of the impact, efficiency and effectiveness of public agricultural support, an analysis to quantify the benefits to farmers of the use of government programs will be a useful extension to this PER.

2 *Agriculture sector reform*

The policy implications in this PER could benefit from more nuanced and concrete roadmaps for implementation. This is expected to be undertaken with support from the World Bank through the ongoing agriculture sector visioning exercise. The exercise identifies future plausible scenarios for the agriculture sector and identifies critical investments and policy reforms that need to take place to achieve a modern and diversified sector.

3 *Data quality*

This PER was constrained by the quality of data. Remapping 2017 and 2018 data to the PBB framework will be critical. Furthermore, access to comprehensive data, such as household data, will support research that can help improve the efficiency of public spending, including on agriculture. Finally, good GDP data is critical for any inferences in this report – strengthening the National Accounts will improve the quality of policy analysis.

4 *Agriculture finance diagnostic*

Given that the withdrawal of private sector finance for the agricultural sector was one of the contributing factors driving up the financial cost of the government's support to the sector, it is recommended that the Government of Zimbabwe carry out an agriculture finance diagnostic. The objective of the diagnostic

would be twofold. First, it will assess key supply-side (private, public and development sector supply) and demand-side opportunities and constraints to the development of a commercially viable agriculture finance market in Zimbabwe; and second, it will propose actions that can sustainably increase farmers' access to finance in agriculture value chains. The overall goal is to contribute to enhancing farmers' and agricultural Small and Medium Enterprises (SMEs)' access to and use of suitable, competitive and sustainable financial services. There has been a structural shift in Zimbabwe's economy from one dominated by large companies to one more driven by SMEs, mostly anchored in the agricultural sector. Such a diagnostic would help identify the key actions, policy reforms, and investments necessary to enhance farmers' and agricultural SMEs' access to and use of suitable, competitive and affordable financial services. Increased access to and use of financial services can play a critical role in supporting investment in farm and upstream value chains that would enhance productivity. Access to savings, credit, and insurance will contribute to farmers building resilience to climatic shocks.

The proposed diagnostic will inform the ongoing policy dialogue around sustainable approaches to financing agriculture and help commercial suppliers of agriculture finance to adapt strategies on products, services and delivery channels. The findings of the diagnostic will contribute to improving the efficiency of the current agriculture finance subsidy program (the Command Agriculture scheme). The diagnostic should be aligned with the current MFED and RBZ's financial inclusion strategy (2016-2020), which has a key pillar on agriculture and rural finance. Their suggestions include interventions in financial education, the introduction of productive finance facilities, the inclusion of non-banking institutions in the credit registry, and use of movable collateral, a warehouse receipt system, and other risk mitigation measures.

The diagnostic would carry out an analysis to identify the financing needs for different segments of farmers. Financing needs vary considerably, depending on the target market. Smallholder and subsistence farmers are seen as benefiting greatly from access to savings, to smooth household income and as being able to meet unexpected expenses (such as school fees and medical bills); however, they are unlikely to be bankable, given the limited capacity to develop bankable investment plans. Medium-sized and market-oriented farmers in general can benefit from credit, to make productivity-enhancing investments on their farms to boost yields. The same is true for SMEs, which can also benefit from long-term finance. In the case of Zimbabwe, given the high exposure to drought, all types of farmers would likely benefit from agriculture insurance, transferring the costs of these shocks to the private sector.



ANNEX 1

SUMMARY OF THE COMMAND AGRICULTURE PROGRAM

Command Agriculture essentially consists of two components: (i) the Special Maize Production Programme, which provides inputs, irrigation, and mechanized equipment to farmers; and (ii) grain procurement (especially of maize) through the Grain Marketing Board (GMB) at an administered price. By law, all maize produced in Zimbabwe is to be sold to the GMB. The main purpose of Command Agriculture is to revive agricultural production; it is thus an import substitution program, not a direct social protection scheme. Subsistence farmers are instead supported through the presidential input scheme (or vulnerable households input scheme). The Command Agriculture program was introduced for maize in the 2016/17 production season and has since been expanded to other value chains, such as wheat and soya. The Command Agriculture task team supervises and monitors the distribution of inputs.

The fiscal cost of Command Agriculture is essentially due to two factors. The first cost results from defaults on inputs provided. Technically, the GMB is charged with reclaiming the upfront financial support for inputs through collections of the harvest. Yet default rates are very high. Improving systems to track inputs and production, and enforcing payment will be important. Notably, not all upfront investments by the government can be recovered in one harvest. While costs related to seed inputs should be recovered at harvest, investments in irrigation and mechanized equipment will need to be amortized over longer periods of time. Eventually, the government should stop financing private goods (such as on-farm irrigation or equipment) and leave such financing to the financial sector (this can include banks, finance and leasing models). This requires developing the ability of the financial sector to support farmers.

The second is the price wedge between procurement and sales prices. The GMB rightly aims to set procurement prices at import parity. Yet sales prices are much lower than procurement prices, providing a subsidy to millers and consumers. This creates inefficiencies, such as incentives for “round-tripping” (the buying of maize cheaply and selling back to the GMB at the official, higher procurement price) or for illegally selling across porous borders. Increasing the sales price will be important to restore fiscal sustainability, but it will have an impact on the final consumers (with maize being the staple crop in Zimbabwe). Steps taken to adjust this implicit subsidy will need to be accompanied by social protection measures to cushion the impact of higher prices on the poor.

The costs of Command Agriculture for maize are summarized below:

Table A.1: Estimates of Command Agriculture for maize, 2016-2019

(Million US\$)

	2016	2017	2018	2019e
Special Maize Programme, net	105	375	177	656
<i>Outlays</i>	105	439	238	717
<i>Recovery</i>	0	64	62	62
Strategic Grain Reserve (maize), net	357	513	288	407
<i>Procurement</i>	371	686	473	552
<i>Sales</i>	14	173	185	145
TOTAL	462	888	465	1062
Total (% of GDP)	2.2	4.0	2.0	4.6

Source: Table 2.5.



ANNEX 2

SUMMARY OF IAPRI AND ZEPARU STUDY ON ZIMBABWE'S PUBLIC EXPENDITURE ON AGRICULTURE

A study published in 2017 by the Indaba Agricultural Policy Research Institute (IAPRI) and the Zimbabwe Economic Policy Analysis and Research Unit (ZEPARU), examines the government's progress in mobilizing public spending to make agriculture a priority sector in achieving sustainable economic growth and poverty reduction, as outlined in the sector and national strategies then in force: the National Agricultural Investment Plan and the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZIM ASSET). Its objectives were to assess actual agricultural spending against alternative spending strategies aimed at pro-poor growth, examine the engagement of smallholder farmers through the spending outcomes, and compare spending outcomes against the Comprehensive Africa Agriculture Development Programme (CAADP) targets. The analysis covered general expenditure trends from 1995 and more detailed sector spending over 2005-2016. It is broadly consistent with the findings and recommendations of this PER.

The study substantiates six main findings:

- The agricultural sector declined as a share of GDP, with stagnating productivity.
- Agricultural spending trended towards too much emphasis on input and output subsidies instead of other key drivers of agricultural growth such as research and development (R&D), extension, and irrigation development.
- Government spending on agriculture over the period was below the CAADP target of 10% with the exception of 2005 and 2008 when quasi-fiscal spending dominated.
- Over 1985-2016, the two largest spending categories were subsidies and strategic reserves (40%) and employment costs (27%). Following the Fast Track Land Reform Programme, allocations increased to the lands, resettlement and technical services program to complement government efforts in land redistribution.
- Operational activities were underfunded over the period (ratio of goods and services to employment costs of less than one)
- Planned and actual spending often differed, with instances of over-spending usually being for subsidies, and under-spending for R&D and extension.

The report recommends:

- Increase funding to key drivers of agricultural growth (research, extension, irrigation, rural infrastructure).
- Improve transparency on divergences between planned and actual expenditure.
- Take measures toward implementing smart subsidies.
- Increase spending on R&D and on infrastructure.
- Promote agricultural sector diversification.
- Promote commercialization of the agricultural sector, improved access to agricultural finance, productivity enhancement technologies, extension messages, and markets.
- Promote value addition and value chain linkages to the broader economy.
- Pursue a stable policy environment that promotes private sector participation.
- Strengthen institutions that support the agricultural transformation agenda.

Source: "Public Expenditure and Agricultural Policy: Policy Issues, Opportunities, and Recommendations for Zimbabwe" LFSP Policy Paper No. 1, ZEPARU and IAPRI, 2017.



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