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USAID STRATEGIC ECONOMIC RESEARCH AND ANALYSIS – ZIMBABWE (SERA) PROGRAM

COST DRIVER ANALYSIS OF THE ZIMBABWEAN ECONOMY

CONTRACT NO. AID-613-C-11-00001

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by

ZEPARU¹

OCTOBER 2014

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Table of Contents

EXECUTIVE SUMMARY	11
I. INTRODUCTION AND METHODOLOGY	16
II. ZIMBABWE’S EXTERNAL TRADE AND RELEVANT ECONOMIC CONTEXT	17
III. COST-DRIVERS COMPARATIVE ANALYSIS	19
A. Labour	19
B. Power	24
C. Water	29
D. Finance	32
E. Transportation and Trade Logistics	36
F. Tariffs and Trade Taxes	40
G. Taxation	41
H. Information Technology (IT)	44
IV. CONCLUSIONS AND RECOMMENDATIONS	46
V. CASE STUDIES	53
Case Study 1: Cement Manufacturing	53
Case Study 2: Fertilizer Manufacturing	58
ANNEX 1: THE OECD REFERENCE CHECKLIST FOR REGULATORY DECISION-MAKING	81
ANNEX 2: CONDITIONS IN CENTRAL AND EASTERN EUROPE IN THE WAKE OF THE GLOBAL FINANCIAL CRISIS	82
ANNEX 3: PDL AND WAGE NEGOTIATIONS IN ZIMBABWE	84
ANNEX 4: TOOLS TO REVIEW EXISTING REGULATION	85
ANNEX 5: ANALYSIS OF THE ZIMBABWEAN FINANCIAL SERVICES SECTOR	86
ANNEX 6: LACK OF SCALE – THE ROLE OF THE AGRICULTURE SECTOR	89
ANNEX 7: LACK OF CHANGE	96
ANNEX 8: PRACTICE IN DETERMINING NATIONAL EMPLOYMENT COUNCIL WAGES	98
ANNEX 9: LIST OF STAKEHOLDERS INTERVIEWED	100

List of Tables

Table 1: Zimbabwe's 2013 Top 10 Exports.....	17
Table 2: Zimbabwe's Imports and Exports by Destination, 2013.....	18
Table 3: Minimum Wage, US\$ per Month, 2009-2013.....	21
Table 4: Evolution of Minimum Wage and US\$ Exchange Rates, 2009-2013	22
Table 5: Redundancy Dismissal Costs, Weeks of Wages	23
Table 6: Minimum Wage Evolution in Zimbabwe, US \$ per month, Selected Sectors.....	23
Table 7: Minimum Wages of Selected Sectors as a % of Government.....	24
Table 8: Government Employment Costs to GDP (percentage)	24
Table 9: Government Employment Costs to National Expenditure (percentage).....	24
Table 10: Independent Power Producers	26
Table 11: Performance of Zimbabwe Power Company	26
Table 12: Average Capacity Utilization.....	27
Table 13: Cost of Power by Source	27
Table 14: Regional Comparison Hydro Power Generation Costs	27
Table 15: Regional Comparison Thermal Power Generation.....	27
Table 16: Non Residential Tariff by Level of Consumption (US Cents)	28
Table 17: Electricity Use by Consumer Type	28
Table 18: Percentage Electricity Use by Consumer Type (%)	28
Table 19: Raw Water Charges	30
Table 20: Domestic Clear Water Tariffs	31
Table 21: Industrial Consumers.....	32
Table 22: Intermediation Costs % points.....	34
Table 23: Credit Information System Development	35
Table 24: Costs and Time to Trade.....	38
Table 25: Costs to Trade on US\$ per tonne/km basis	38
Table 26: Regional Rail Rates	39
Table 27: Customs Clearance, Selected Indicators	40
Table 28: Import Tariffs 2012	41
Table 29: Total Tax Rate, % of Profit.....	43
Table 30: Costs of fixed-telephony, mobile, and fixed-broadband (US\$ per month), 2012.....	45
Table 31: Access fixed-telephony, mobile, and fixed-broadband 2005 and 2012	46
Table 32: SMS Services.....	46
Table 33: Voice Services (Charges in US Cents)	46
Table 34: Landed cost of ZAR 95.84 per bag conversion to US\$.....	54
Table 35: Cost Comparison for Cement Production.....	55
Table 36: Unit Cost Comparison of Final Product.....	55
Table 37: Zimbabwe Import Tariffs – Sample Spare Parts	56
Table 38: Gap Reduction	56
Table 39: Market Analysis – Local versus Imported Fertilizer	60
Table 40: Post Dollarization	60
Table 41: Consumption of fertilizer products by farming sector.....	61
Table 42: The market shares of the farming subsectors	61
Table 43: Capacity Utilization (Granulation Plus Blending) Prior to Dollarization.....	61

Table 44: Capacity Utilization – Post Dollarization	62
Table 45: Ratio of Imports to Capacity	62
Table 46: Ratio of Imports to Capacity – Post Dollarization	62
Table 47: Cost Structure – Sable Chemicals Ammonium Nitrate	64
Table 48: Capacity Utilization, Ammonium Nitrate: 2009 - 2013.....	64
Table 49: Sensitivity Analysis - Ammonium Nitrate	65
Table 50: Ammonium Nitrate price history since dollarization.....	65
Table 51: Capacity Utilization of Sables Chemicals.....	67
Table 52: Cost Structure Phosphate Rock	67
Table 53: Power Tariff.....	68
Table 54: Cost Structure – Superphosphate	68
Table 55: ZimPhos is on the normal industrial tariff like other industrial consumers as follows;.....	69
Table 56: ZimPhos Capacity Utilisation 2009 to 2013	69
Table 57: ZimPhos Production 2009 to 2013	69
Table 58: ZimPhos Cost Reduction	69
Table 59: History of Prices of Supersphophates – since dollarization.....	70
Table 60: Import Parity Price Comparison AN	71
Table 61: ZimPhos – Super Phosphates	71
Table 62: Cost Structure – Secondary Stage Granulation and Blending.....	71
Table 63: Summary – Process Costs	72
Table 64: Comparison – Current Costs – Import Parity Prices	72
Table 65: Maize Fertilizer.....	73
Table 66: Tobacco Fertilizer.....	73
Table 67: Regulatory Costs for each Distribution point per year.....	75
Table 68: Banking Performance	86
Table 69: Loans and Advances Deposit Ratio.....	87
Table 70: Deposit Ratio to Total Country	87

List of Figures

Figure 1: Minimum Wage Growth vs. GDP Growth, 2009-2012.....	22
Figure 2: Zimbabwe Minimum Wage as % of S. Africa Minimum Wage.....	23
Figure 3: Average Lending Rates, % 2010-2013	34
Figure 4: Access to Finance by Zimbabwean Firms, Selected Indicators	35
Figure 5: Time to Export	39
Figure 6: Time to Import	39
Figure 7: Total Tax Rate, % of Profit	43
Figure 8: Zimbabwe Fertilizer Industry Production Flow Chart.....	59

List of Abbreviations

ADSL	Asymmetric Digital Subscriber Line
AEZs	Agro-Ecological Zones
AN	Ammonium Nitrate
ARDA	Agricultural and Rural Development Authority
BAZ	Broadcasting Authority of Zimbabwe
BBR	Beit Bridge Railways
BPO	Business Processing Outsourcing
COMESA	Common Market for Eastern and Southern Africa
CZI	Confederation of Zimbabwe Industries
ECA	Economic Commission for Africa
EMA	Environmental Management Agency
FAO	Food and Agriculture Organisation
FDI	Foreign Direct Investment
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GMB	Grain Marketing Board
GMO	Genetically Modified Organisms
GWh	Gigawatt Hours
HPA	Health Professions Authority
ICT	Information Communication Technology
IDC	Industrial Development Corporation
IEE	Indigenisation and Economic Empowerment
IMF	International Monetary Fund
IT	Information Technology
ITC	International Trade Centre
ITU	International Telecommunications Union
KVA	Kilovolt-Ampere
KWh	Kilo Watt Hour
LCU	Local Currency Unit
LPG	Liquefied Petroleum Gas
MCAZ	Medicine Control Authority of Zimbabwe
MFN	Most Favoured Nation
MIC	Ministry of Industry and Commerce
MW	Megawatts
NEC	National Employment Council
NPKs	Nitrogen, Phosphorous, and Potash (Potassium)
NRZ	National Railways of Zimbabwe
NSSA	National Social Security Authority
OECD	Organisation for Economic Cooperation and Development
OPC	Office of the President and Cabinet
PDL	Poverty Datum Line
POTRAZ	Postal and Telecommunications Regulatory Authority of Zimbabwe
PPC	Pretoria Portland Cement
PPPs	Public Private Partnerships
PSTN	Public Switched Telephone Network
RG	Reference Group
RPAZ	Radiation Protection Authority Zimbabwe
SADC	Southern African Development Community

SERA	Strategic Economic Research and Analysis
SMS	Short Message Service
TOU	Time of Use
US	United States
USAID	United States Agency for International Development
WAPCOS	Water and Power Company Services (India)
WB	World Bank
WEF	World Economic Forum
WTO	World trade Organisation
ZAR	South African Rand
ZCFU	Zimbabwe Commercial Farmers Union
ZEPARU	Zimbabwe Economic Policy Analysis and Research Unit
ZERA	Zimbabwe Energy Regulatory Authority
ZESA	Zimbabwe Electricity Supply Authority
ZETDC	Zimbabwe Electricity Transmission and Distribution Company
ZFC	Zimbabwe Fertilizer Company Limited
ZIM ACP	Zimbabwe Agricultural Competitiveness Programme
ZimStat	Zimbabwe National Statistical Agency
ZIM\$	Zimbabwean Dollar
ZimPhos	Zimbabwe Phosphates
ZIMRA	Zimbabwe Revenue Authority
ZINWA	Zimbabwe National Water Authority
ZISCO	Zimbabwe Iron and Steel Company
ZNCC	Zimbabwe National Chamber of Commerce
ZPC	Zimbabwe Power Company

EXECUTIVE SUMMARY

This study was carried out in response to a request by the Ministry of Industry and Commerce, to ZEPARU to conduct an evaluation of cost drivers affecting the competitiveness of Zimbabwe's businesses. Factors identified in ZEPARU's previous studies which were considered in this study included labor, power, water, finance, transportation costs, tariffs and trade taxes, taxation and information technology. The study extended the analysis to consider the following factors: lack of scale- under performance of agriculture (Annex 6); failure by government to pay for goods and services on time; and lack of change (Annex 7). These factors were raised by company executives and business associations during interviews as negatively impacting on costs and competitiveness.

Zimbabwe's international trade flows, and their composition, point towards a sustained loss of competitiveness. Merchandise imports have risen twice as fast as exports in the last five years. The composition of those exports has changed over that period, as more concentration in minerals and metals is observed imports of services have grown faster than exports.

Following the adoption of the multi-currency system in 2009, the economy faces increased competition from South African imports, its main trading partner accounting for nearly 75% of exports and 48% of imports. The Rand has depreciated against the US Dollar from levels of R7 to R10 currently, which has in turn made South African imports cheaper. The depreciation of the Rand adversely affects the competitiveness of Zimbabwean companies whose costs are on a stronger currency.

Under the multi-currency system the option of devaluing the national currency to regain competitiveness is foregone. Under these circumstances a combination of increased productivity and reduction in the cost of doing business become viable strategies to enhance competitiveness. It should be noted that while this study is limited to selected factors within the overall cost of doing business from the perspective of the private enterprise, a holistic internal cost reduction, analogous to a process of "internal devaluation" is needed which in turn will support productivity increases. In this regard, the policy responses to the competitiveness gap developed in Central and Eastern European economies in the wake of the global finance crisis is instructive. Key among the measures adopted by these countries was achieving fiscal balance through both public and private sector wage cuts, which had ripple effects throughout the rest of their economies.

Minimum wage levels indicate higher labour costs in Zimbabwe when compared to Zambia, Botswana, and Mozambique, and a labour cost advantage in relation to South Africa. However, the trend observed in the last five years reveals large increases that do not appear to be justified by increased economic growth or productivity, at a time when the economy faces increased regional competition from devaluation in neighbouring countries. To remain competitive, wage increases in a given economy need to be aligned with productivity levels; however the current labour code and practices translate into salary increases expected and upheld by law for all employees regardless of their performance and productivity. Large wage increases (in particular in central government, which is the largest formal employer) observed indicate the need to review the mechanisms through which they are set.

Redundancy dismissals are lengthy and prohibitively expensive. Severance payments average 69.2 weeks of wages, nearly three times as high as the neighbouring country average of 25.4 weeks. The financial implications of retrenching for Zimbabwean companies are not allowing them to reduce their excess labour to regain competitiveness, essentially leaving them in an uncompetitive trap.

Modifications to the current labour code to shift collective bargaining to the company level, explicitly regulation of redundancy benefits in line with regional levels, the introduction of a rapid resolution scheme to allow retrenchment at a reasonable cost, and revision to the wage setting mechanisms at all government levels with a view towards incorporating productivity and ability to pay are recommended.

In the region, Zimbabwean-based firms face the higher (i.e. least competitive) electricity costs for Zimbabwean firms are the least competitive regionally. Demand exceeds available supply and firms are experiencing power load shedding. Users are required to pay an effective tariff of 14.5 US Cents per kilowatt/hour to avoid being subjected to the latter. The average of the 4 neighbouring countries (Botswana, Mozambique, South Africa and Zambia) at the lowest level of commercial consumption is 8.3 US cents per KWh², which is 57% of what Zimbabwean businesses pay for electricity. Sixty percent of power is generated at Kariba at a competitive cost (hydropower), a benefit that is being washed away by much more inefficient thermal stations. Options to optimize power generation include the attraction of private capital into existing thermal power generations through public private partnerships (PPPs) and separating Kariba to use it strategically for new expansions into hydro generation.

Water tariffs are more expensive in Botswana and South Africa, although fixed charges were found to be higher, and users reported instances in which ZINWA sells raw water to farmers regardless of whether they helped with dam construction or borehole drilling. To encourage investment in agriculture the government could consider exempting farmers from paying for raw water where the farmers have constructed and maintained their dams. It was also noted that the pricing models in use are not sensitive to water intensive industries and affordability by consumers.

On average, Zimbabwean firms borrowing costs (at an average of 28% in 2013) are twice to three times the levels observed in the region. These high lending rates are reflecting the combined effect of several factors, but “paramount among them is widespread perceived country risk and limited investor confidence”³ which is constraining the ability of the financial system to mobilize savings to be used for investment. Besides risk, other factors include high levels of non-performing loans, high bank concentration of assets (indicating limited competition in the sector), and high operating costs. Only 12.5% of firms reported having a bank loan, 13% were using banks to finance investments and working capital, and only 5.5% of working capital needs were financed by bank loans. The costs of finance go beyond high interest rates as firms are unable or unwilling to demand capital to achieve economies of scale, to purchase inputs when prices are convenient, to reduce unutilized labour due to high redundancy costs, or to finance investments in much needed plant and equipment improvements. These costs are real and placing Zimbabwean firms at a competitive disadvantage, although they are harder to measure.

Risk reduction in the economy to make capital affordable and improve access to finance should be a priority in light of the higher costs it imposes on domestic firms. Improving reliable credit information and collateral mechanisms is recommended, as well as improvements to the business environment more generally. In this regard, all other policies recommended should improve the risk profile of the Zimbabwean economy. In addition, strengthening public-private dialogue within the reform process will ensure that the reforms enacted are captured by influential international indexes such as the GCI and The World Bank Doing Business, lowering the risk perceived by international investors which can lead to increased FDI attraction and liquidity, as well as beneficial competition in the banking, transport, and IT sectors. However, restrictions in these sectors need to be removed as well, including those stemming from the IEE Act. Credibly clarifying the rules and scope of this Act would be a crucial step in this process of effectively opening up the country to FDI.

Expressed as percentage of freight value, Zimbabwean businesses can expect to pay 18.8% to export, and a staggering 28.8% of freight value when importing, including documents preparation, customs clearance and control, port and terminal handling, and in-land transportation. The latter is the largest component of these costs. The comparative figures place Zimbabwean businesses between 3 and 5 percentage point disadvantage vis a vis Botswana and Zambia when exporting, and more than 10 percentage points when importing. The gap with South Africa is even wider (the costs of exporting are nearly double and three times those of importing).

² At the lowest level of commercial consumption

³Piorela, Newfarmer et al (2014), p. 14

Poor road infrastructure, limits on competition and foreign investment, and excessive roadblocks, tolls and police fines (regarded by stakeholders to be more of a revenue raising activity) are contributing to higher transportation costs. Rail freight is about 40% cheaper relative to road transport; however, unpredictable delivery times and the poor maintenance of the network restrict its use.

Beyond transportation, importing and exporting in Zimbabwe is subject to red tape, excessive and opaque processes, overregulation, frequent solicitation of informal payments, and importantly, multiple physical inspections. All these are negatively impacting the costs of trading. The time to prepare documents consumes 33 out of the 53 days required for exports and 42 out of the 71 for imports. All agricultural commodities and inputs as well as medicines imported or exported from Zimbabwe are subject to specific licensing requirements, with many of them requiring multiple licenses, sometimes from different departments in the same ministry). Lack of predictability in obtaining permits adds to the costs faced by firms involved in importing or exporting: their ability to close transactions with international buyers is compromised in the latter case or a critical input cannot be obtained in the former. Logistics professionals report that they typically deal with 10 different government agencies in the clearance process, 50% of respondents in Zimbabwe reported that they often find solicitation of informal payments in the clearance process, and that about 42% of import shipments are subject to multiple physical inspections.

Reviewing import and export licenses eyeing their elimination and facilitating compliance for those remaining, expanding risk-based inspections, introducing a trusted-trader program, as well as establishing a dialogue between the 10 border agencies with the goal of establishing a single window system are highly recommended trade facilitation measures. Likewise, transparency through an easy to navigate trade information portal, and licensing custom brokers at the individual level could help in facilitating international trade.

Tariff policy in Zimbabwe is significantly placing producers and exporters at a significant competitive disadvantage. Available figures point to tariff levels (inclusive of the recently introduced 25% import surtax) being twice as high as the average of its neighbours (which implies that businesses in Zimbabwe pay on average twice as many taxes for imported inputs. This disadvantage can be reduced and/or eliminated by removing the surtax and reducing tariff levels at least to those observed in the neighboring countries. A policy shift where other tools are used instead of tariffs to promote industrial development is recommended.

Property taxes appear to have a disproportionate impact in taxation levels, accounting for 8.1 percentage points of an estimated total tax rate of 35.3%. The rates vary per property type/location, and are assessed against the value of the property. The high impact could be stemming from property values that are out of date and do not reflect market values. Property valuations should be updated to reduce their disproportionate impact.

A particular set of regulations that were deemed very onerous by most private sector stakeholders consulted were those stemming from the Ministry of Environment, Water and Climate and the EMA Act. Stakeholders and previous studies reported problems ranging from lack of transparency about the regulations to compliance costs having a disproportionate impact on the profitability of enterprises. Benchmarking globally and regionally and reassessing these regulations is recommended, as evidence is mounting that these regulations are deterring domestic and foreign investment.

The multiplicity of fees, licenses, excise taxes, regulatory charges, permits, and other levies, described throughout the study, as well as mounting evidence of large impacts on the profitability of enterprises point to the need for a broad regulatory reform of existing regulations and introducing the principles of regulatory quality across government agencies. The main elements to achieve such quality are to consult those affected (transparency), assess the impact before enacting new regulation (accountability), and that regulations are effective in terms of achieving a clear public-policy purpose.

In this light, Zimbabwe would benefit from a comprehensive, all-of-government regulatory reform to repeal excessive regulations that place a large burden on private businesses. Establishing a Better Business Regulation

Commission mandated at the highest government level to create an inventory of regulations to be repealed or modified has been an approach followed by countries wishing to improve their business environments. Such a commission could also introduce elements of regulatory quality to ensure that the flow of new regulation meets agreed quality criteria. The processes utilizes regulatory quality tools such as subjecting regulations to an impact analysis, place the burden of proof on the regulator to justify existing regulations, and could establish a permanent unit to review impact analysis for new regulations.

Infrastructure development can improve access to ICT in certain segments (broad-band, fixed-telephony) and reduce the cost of services. The perception from private sector stakeholders consulted, is that service providers in the ICT sector cannot offer the same quality of services due to varying investments in infrastructure development. ECONET is the dominant player and the pace setter. The limited competition in this sector has given rise to higher prices. In this regard the regulator should investigate and monitor any abuse of market power. The regulator could also consider a policy of infrastructure sharing to reduce cost and improve efficiency in service delivery. The market in Zimbabwe is relatively small, e.g. when compared with South Africa; and the sharing of infrastructure could reduce the total costs to the economy and subscribers. The policy should eliminate duplication of infrastructure and help to direct resources to building a more efficient service and to serve uncovered areas.

Most companies in Zimbabwe are operating at sub – optimal level. Capacity utilization in manufacturing is particularly low increasing unit costs. In an environment of high fixed costs and under capacity utilization as prevailing in the country unit product costs become high and products cannot compete on price domestically and in the foreign markets. CZI survey (2013) reports that capacity utilization at 39 % has reduced from the average of 44 % reported in 2012. The legal framework as governing labour, property taxes and many statutory obligations do not enable firms to adjust their costs downwards as volumes decline resulting in higher product unit costs. As alluded to above capacity utilization is also impacted by lack of adequate working capital which prevents adequate procurement of inputs, undependable domestic consumption, and sub – optimal supply of agriculture inputs. The Zimbabwean economy is agro- based. All sectors of the economy depend on the strength of the agriculture sector as 70% of Zimbabweans derive their income and livelihood from agriculture related activities. The performance of the sector is therefore an important enhancer of economic activities.

There are strong linkages between agriculture, manufacturing, mining and commercial sectors. Whenever the agricultural season was good, the performance of other sectors was correspondingly good, because of strong forward and backwards linkages that exist between agriculture and other productive activities and commercial services. The performance of the entire economy is heavily influenced by how the agricultural sector is performing. Any positive developments in agriculture filter through the rest of the economy. “Linkages between agriculture and manufacturing are particularly strong.” The manufacturing processes sixty percent of agricultural outputs while also supplying agriculture with many of its input requirements.

The government should act on factors restricting the performance in the agricultural sector as a prelude to rejuvenating the economy. Strategies should be implemented to overcome the weaknesses resulting from the land reform program, craft a sustainable mutually beneficial contract farming policy, support the fertilizer industry and evaluate the prevailing agriculture model with a view to regroup means of production, (labor, management, skills, capital) incorporating an institutional framework and private sector participation.

Delay by government to pay for goods and services are crippling many sectors of economy. The fertilizer industry, pharmaceutical, construction and other service providers have been hurt by long delays that have brought some companies to a comatose state. Companies are pressurized to meet tax and operational obligations on revenue on which there are outstanding debts. Some of the affected companies have been forced to scale down operations to a degree to which their working capital is tied in overdue debtors.

The economy has been short of sufficient small denominators for use as change since dollarization. There was some endeavor to solve this problem as it relates to small transactions in 2012. The attempt to import coins

proved to be economically unviable. It was then considered necessary to solve the problem by minting local dollars that would trade at the exchange rate of ZIM\$ 1 being equal to US \$ 1. Coins of smaller denominations would have been made available by the Reserve Bank of Zimbabwe (RBZ) to facilitate trade in the retail sector. A study was carried out at RBZ in conjunction with the Ministry of Finance. The Ministry of Finance and RBZ should re – visit the matter with a view to introducing local dollars as was recommended then. Lack of change distorts pricing of products, suppresses demand, misallocates household income and reduces capacity utilization.

Overall, the Zimbabwean economy needs to adjust to the realities of dollarization and the need for an “internal devaluation” to reduce higher cost factors is evident. Restrictions that are in place in the country’s labour, foreign investment, and international trade policies are increasing the cost of doing business and the economy cannot afford them. The specific recommendations made by this study predicate the need for a more open, liberalized and unrestricted economy and a more customer-centric (i.e. business-friendly) government that improves the quality of its regulation.

This internal devaluation requires coordinated actions across government as well as commitment at the highest level. In as far as the cost-structures highlighted in this study are central for the competitiveness of Zimbabwean industries, an appropriate role for the Ministry of Industry and Commerce is to highlight them (and their solutions) to other government agencies and become an advocate for reform within government.

I. INTRODUCTION AND METHODOLOGY

This study was prepared responding to a request from Ministry of Industry and Commerce (MIC) for ZEPARU to undertake an analysis of the “country’s pricing structure”. Policy makers and other stakeholders are of the view that the nation’s pricing structure is contributing to the current loss of competitiveness of the country’s exports and rising demand for cheaper imports. The USAID-SERA Program agreed to support ZEPARU through the engagement of two consultants to be part of the research team.

The study’s objectives were to develop a regional comparative analysis of those major cost factors affecting the competitiveness of Zimbabwe industries, evaluate Zimbabwe’s cost levels in light of those comparisons, and to highlight priority areas and policy reforms that could decrease the cost gaps identified.

This study benefited from insights drawn from the four value chain studies that had been recently commissioned by ZEPARU. The studies focused on Chemical Industries, Engineering and Metal Products, Cotton to Clothing, and the Agricultural Products Value Chains. These studies among other issues, identified labour, power, water, finance, transportation costs, duties and taxes, and higher domestic prices for imported inputs as major cost drivers. Information Technology (IT) was added to the list, given its key role as a cross-cutting productivity enhancer and the country’s potential in BPO services.

The study team proceeded to gather objective quantitative and qualitative data for each of the cost-drivers identified and benchmark its levels to those observed in South Africa, Botswana, Mozambique, and Zambia (the main regional trade partners). The team looked for data that would allow it to assess the level of costs as private business would face them in the different countries. The use of international data sets was maximized to ensure comparability of the information presented. Next, the team conducted additional research and analysis to develop an understanding of the factors that were driving higher costs in Zimbabwe.

A wide and diverse group of public and private stakeholder interviews took place from May 27th through June 14th (see Annex 9 List of Stakeholders Interviewed) in Harare and Bulawayo. The list of cost-drivers to evaluate was subsequently validated through these interviews, as well as at a Reference Group (RG) meeting at the outset.

It is worth clarifying that although the study delves into many costs of doing business, it yet falls short of a comprehensive business enabling environment or competitiveness study. It is limited to a regional comparison of objective measures of “costs” from the perspective of a private enterprise (as opposed to economy wide costs). It is also not a competitiveness study, since it just focuses on the cost elements as opposed to many other strategic elements of positioning an industry/product, the quality of the workforce, and the technology used in combining factors of production. Said differently, the focus is merely on cost competitiveness, and is not intended to cover other aspects beyond costs.

As such, the focus on quantitative “costs” may have side-lined other elements in the business and regulatory environment that raise the costs of doing business (i.e. resolving insolvency, incorporating a business, enforcing contracts), as well as many industry specific regulations. The latter are better assessed in value chain analyses and with methodologies designed specifically to measure regulatory compliance costs. However, to the extent that the information was available, it was taken into account in the relevant section.

The rest of the paper is organized as follows. Section II discusses Zimbabwe’s current trading position, as well as other relevant elements of the economic context in which the perceived competitiveness loss is developing. Section III presents the data and analysis of each identified cost-driver. Section IV concludes with the policy options identified. The last section includes some simple case studies on the impact in selected products of reducing the costs of a few of the factors considered throughout this research paper.

II. ZIMBABWE’S EXTERNAL TRADE AND RELEVANT ECONOMIC CONTEXT

Zimbabwe’s international trade flows, as well as its composition, point towards a sustained loss of competitiveness. Merchandise imports have risen almost twice as fast as exports in the last five years. Over the 2009-2013 period, imports have grown at an average rate of 20% per annum, while exports have done so at 11% over the same period⁴. This has resulted in Zimbabwe’s merchandise trade deficit soaring from \$1.26 billion dollars in 2009 to nearly \$4.2 billion dollars in 2013 (a total increment of 234%).

while exports have shown positive growth, the composition of those exports has changed over that period, as more concentration in minerals and metals is observed (See Table 1). The World Bank (WB) reported in a 2012 study that “products variety decreased over time from 3889 products in 2004 to 2661 in 2010, with the bulk of decrease occurring around 2008-2009 coinciding with the peak of the hyperinflation crisis. On the other hand, export volumes are increasingly reliant on commodities and commodity-based products, such as raw material and agricultural products making up over 50% of total exports in 2011.”⁵

Table 1: Zimbabwe’s 2013 Top 10 Exports

Products	Share in Exports as at 2013	Avg Annual Growth, 2009-13
Tabaco	24.80%	37.72%
Gold unwrought	14.33%	48.96%
Nickel matte & oxide Winters	11.73%	13.05%
Nickel ores and concentrates	9.32%	17.66%
Diamonds, not mounted or set	9.31%	88.19%
Ferro-alloys	4.23%	48.04%
Platinum, unwrought	4.00%	n/a
Cotton, not carded or combed	2.77%	-1.29%
Cane or beet sugar and pure sucrose	2.58%	5.37%
Unwrought nickel	1.13%	28.36%

Source: *International Trade Center, Geneva.*

Zimbabwe’s trade in services is also experiencing higher import growth. In the five years to 2011⁶, export of services increased at annual rate of 7.1%, while imports increased in value at an average annual rate of 18% over the same period. In that year, the commercial services balance for Zimbabwe showed an additional (to the merchandise trade) deficit of US\$734 million.

The 2008 extreme hyperinflation resulted in a de facto abandonment of the domestic currency, leading to the adoption of a multi-currency regime dominated by the US dollar in 2009 (see Chigumira et.al 2009 and 2013 for details). Among many pressures that the Zimbabwean economy has had to endure, it is worth highlighting increased competition from South African imports, its main trading partner. The Rand-US Dollar exchange rate has been very volatile over the last five years, fluctuating between levels ranging from R7 to R13.5, which have in turn made South African imports cheaper. Other regional currencies that have considerable trade with Zimbabwe (Mozambique, Botswana and Zambia) have also depreciated in US Dollars term. In 2013, South Africa received 74.5% of Zimbabwe’s merchandise exports, and 47.5% of imports originated from this country (see Table 2).

⁴ Growth measured by value. All trade data presented here is sourced from the International Trade Centre in Geneva, as reported by Zimbabwe.

⁵Pifaretti, Hove and Shang, 2012. Zimbabwe Growth Recovery Notes: “From Economic Rebound to Sustained Growth”, p. 34

⁶Latest year reported in WTO/ITC databases.

Table 2: Zimbabwe’s Imports and Exports by Destination, 2013

Exports Markets	% of Total Exports	Origin of Imports	% of Total Imports
South Africa	74.5	South Africa	47.5
Mozambique	10.5	United Kingdom	18.4
United Arab Emirates	6.5	China	5.7
Zambia	3.3	Zambia	3.4
Botswana	1.3	Mozambique	2.6

Source: International Trade Center, Geneva, as reported by Zimbabwe.

More specifically, a World Bank publication observed that Zimbabwe is developing a competitiveness gap. The appreciation of the real exchange rate suggests that the price structure of the economy has shifted against tradable products. In 2012, the International Monetary Fund (IMF) estimated that the real exchange would have to depreciate by 15 to 20 % in order to clear the competitiveness gap and ensure long-term sustainability⁷.

The dollarization of the Zimbabwean economy precludes exchange rate devaluation. This implies that to regain competitiveness a combination of increased productivity and reduction in the cost of doing business needs to be achieved. This study is limited to selected factors of the latter, but reducing the cost of doing business will also support productivity increases.

In this order of ideas, a holistic internal cost reduction, analogous to a process of “internal devaluation” is needed. Zimbabwe’s situation resembles the situation of Central and European countries which had their currencies fixed to the euro in the wake of the global financial crisis of 2008, and examining their policy responses to the competitiveness challenge can be instructive. These are summarized in Annex 2. Rather than devaluing their currencies, these countries regained their competitiveness through a series of policy responses to achieve the required levels of internal devaluation. Key among these measures was achieving fiscal balance through public wage cuts, which had ripple effects throughout the rest of their economies.

The scope and methodology of this study called for an examination of labour costs more broadly, and excluded the examination of the effects of government finances in the overall level of costs in the economy. As such, the issue is treated only tangentially in as much as public sector wages appear to be out of line with economic growth. Nevertheless, the measures taken by these countries highlight, on one account, the stabilizing benefits of achieving holistic cost reductions and on the other, additional options to achieve it.

⁷ Pifaretti, Hove and Shang, 2012. Zimbabwe Growth Recovery Notes: “From Economic Rebound to Sustained Growth”, IMF. p. 32

III. COST-DRIVERS COMPARATIVE ANALYSIS

The sections below analyse each cost-driver as identified in the introduction. Whenever possible, the costs are benchmarked with levels in South Africa, Botswana, Mozambique, Zambia, which are the main regional trade partners as discussed in the previous section.

A. Labour

Along with capital, labour is a basic factor of production, and its costs influences the costs of all goods and services produced in the economy in the proportion of the particular intensity with which the production process utilizes labour. As such, it has a cross-cutting influence in all the other identified cost-drivers, including finance. In some sectors, such as manufacturing and banking, it might represent as much as 33% and 55% respectively of total input costs. It is therefore critical to ensure that wage levels are aligned with overall growth and productivity in the economy.

Considering minimum wage levels in 2013 as an indication of labour costs, labour in Zimbabwe is more expensive in relation to Zambia, Botswana, and Mozambique. However, Zimbabwe appears to have labour cost advantage in relation to South Africa. At an average of US\$246.50 per month in Zimbabwe, the minimum wage in Botswana, Mozambique and Zambia stands roughly between 42% and 53% of the level in Zimbabwe. Nevertheless, the Zimbabwean minimum wage for an entry level position is roughly 38% of the South African levels, where the comparable minimum is US\$646.40. (See Table 3: Minimum Wage 2009-2013)⁸.

However, when one looks at the evolution of the minimum wage levels, a worrying trend emerges for Zimbabwe. From 2009 to 2013, the minimum wage in Zimbabwe (in US dollar terms) increased from US\$90 to the current US\$246.50 level (a total increase of 173.84%) which translates into an average annual growth of 28.6%. Meanwhile, the minimum wage levels in the rest of the region only increased at average annual rates way below that level- 19% in Zambia, 6.3% in South Africa, 5.9% in Mozambique and only 2% per year in Botswana over the same period.

Private sector stakeholders consulted for this study (the Confederation of Zimbabwe Industries (CZI) and the Zimbabwe National Chamber of Commerce (ZNCC) as well as individual business executives), while validating the extent of labour cost increases in the last five years, had mixed views about whether the much larger wage increases in comparison with regional levels were due to wages “catching up” from being set at the “wrong level” due the dollarization process in 2009. However, there was broad agreement that the labour code and the practices were out of date hence the need to modernize them if the Zimbabwean economy is to regain competitiveness.

In any case, wage levels in a dollarized economy such as Zimbabwe need to be flexible enough to adjust to competitive pressures which may stem from depreciation of currency levels in other countries (see Table 4: Minimum Wages and Exchange Rates). Additionally, wage increases need to be aligned with productivity levels for the economy to remain competitive. Neither of these principles is congruent with the observed wage increases in Zimbabwe during the 2009-2013 period. While wage levels increased disproportionately in Zimbabwe, regional trading partners experienced currency depreciations ranging from 6.9% (Zambia’s Kwacha) to 17.9% (Botswana’s Pula). Likewise, the large increases in labour costs observed in Zimbabwe do not appear to be justified by growth in Gross Domestic Product (GDP) per capita (see Figure 1)

⁸ The minimum wage is a good indicator but one factor that has not been explored explicitly in this study is the impact of the huge salaries and allowances for top managers in the public & private sectors on competitiveness especially where they have not been linked to productivity and profitability of the enterprise. These salaries and allowances could be a major driver of cost especially in an environment where there are such huge distortions.

The current labour code, as well as elements of practice underpinned by it, is contributing to driving labour costs beyond sustainable levels in Zimbabwe, and, importantly, it is not placing the correct incentives for a motivated and productive labour force. Although minor amendments have been enacted over the years, the labour laws date from the introduction of the Labour Relations Act of 1985, with the imperative of protecting the employees from the history of exploitation by what were then mostly non-indigenous employers.⁹ The Labour Act provides for collective bargaining at the National Employment Council (NEC) level. The categorization of NECs is based on a broad classification of industries, which many times may include sub-sectors and companies with varying cost structures. However, the agreed salary increases at NEC level are applicable to all companies falling under the particular NEC, without considering their ability to pay. While exemptions are allowed, a climate of expectation will have already been created by the increase agreed at the NEC level. This practice translates into salary increases expected and upheld by law and practice for all employees regardless of their performance and productivity.

Additionally, the Poverty Datum Line (PDL) is used traditionally as a reference for wage negotiations.¹⁰ The labour movement in Zimbabwe is strong, and the attempt to close the gap between PDL and the minimum wages may lead to a situation in which competitiveness would be difficult to regain.

When examining the initial level and evolution of minimum wages in different sectors (see Table 6 and Table 7), one can observe the different levels of bargaining power between the central government, state owned enterprises (as exemplified by ZESA) and local government (as exemplified by the City of Harare). The central government appears to have been able to control wage growth establishing at the outset of dollarization an initially minimum of \$100 per month. In the private sector, the levels were lower with the exception of banking and insurance. However, ZESA and the City of Harare, even when they are part of the government, started at much higher levels. Over the subsequent years the latter situation has corrected itself as moderate increases to the minimum wage were registered. The situation highlights, though, the lack of reference to productivity levels and ability to pay in labour negotiations.

From 2009-2013, the highest increase observed is in government minimum wages, which have increased 216% over that period, along with similar increases in the commercial sector (but from a lower base). This level is higher than the average minimum wage, which experienced a total growth of 173.84 % over the period (Table 3). As discussed earlier, such a large increase does not seem to be in line with GDP growth, neither with the government's fiscal space.

Such a large increase is indeed worrying in light of the public sector wage bill, which according to IMF figures has increased from 45% of GDP to 68.4% in 2013¹¹. While we cannot conclude from that data whether government salaries are too high, as it may also be masking a government with an excessive amount of employees, the large increase observed points towards recommending, in particular, the review of the mechanisms through which government wages are set. As discussed in Section II, the government is the largest formal employer and its wage level has influences in the overall labour market and beyond.

In setting its salaries government should consider its capacity to pay as guided by the ratio of employment costs to GDP, to total expenditure and to revenue. For example employment costs for 2013 are 22 percent of GDP against the average Sub-Saharan ratio of 7.3 %¹². The ratios as indicated in Table 7 to Table 9 indicate a dire scenario

⁹Lopdale, 2014, pp. 3-6

¹⁰ For a history of its use, context, and intentions at its introduction, please see Annex 3.

¹¹ IMF, GDS

¹² This is because of limited fiscal space of government due to shrinking revenue base. As indicated before, e.g. capacity utilization of companies is declining hence impact on the total revenue base. It is not like Civil servants salaries are above what they are worth. Like I indicated before the base is just too low.

which has led to a point in which the government is not able to meet its other social obligations as evidenced by neglect of hospitals and schools, infrastructure maintenance and other social responsibilities. The civil servants constitute 3 % of the Zimbabwe population, and by committing public funds to the current level of employment costs the government is depriving the rest of its citizens which could benefit from hospitals, schools and other amenities which are currently under funded. As a result the government is also failing to pay its suppliers of goods and services, the accumulation of local creditors is worrisome and cannot continue without a strategy to halt further accumulation and deal with arrears. Utility providers and some firms have been adversely affected by this skewed over spend on employment costs at their expense.

Redundancy dismissals are lengthy and prohibitively expensive. According to the World Bank, the notice period an employer must provide in Zimbabwe is equal to 13 weeks, which is roughly 3 times as lengthy as what is required in the neighboring countries (see Table 5: Redundancy Dismissal Costs). Likewise, the severance payment that Zimbabwean employers make on average equals 69.2 weeks of wages, which is also nearly three times as high as the neighbouring country average of 25.4 weeks. When added together, the total costs of retrenchment in Zimbabwe amounts to 82.3 weeks of wages (a little over a year and a half), which is the highest in the region and nearly 9 times the 9.3 weeks of wages in South Africa.

Moreover, “employers fear for open-ended costs for the legal process and lump sum costs for severance. In addition, there is a lot of paperwork that must be created and maintained to prove proper processes have been followed. This can be very time consuming and costly for the employer. In some cases the process can take forever.”¹³

Reportedly, the law does not prescribe nor entitles the dismissed employee to a specific amount to be paid by the employer as severance. Rather, the figures reported by the World Bank are a result of practice in labour arbitration and court cases. In the opinion of several stakeholders, the unions in Zimbabwe are strong, well organized, and there is also a lack of capacity in the judicial system, where judges simply resort to precedents to make their resolutions.

This issue needs urgent attention, as many businesses are essentially “trapped” with excess labour which are driving up their per unit costs (and thus hindering their ability to compete), but also do not have the financial means (nor access to them) to dismiss unneeded employees. In the same order of ideas, companies that have re – capitalized by acquiring new technology (or hoping they would be able to re-capitalize in the future) need to trim staff as new technology is likely to require fewer workers. In the circumstance where companies need to re – tool and retrench at the same time the practice of retrenching implicitly becomes part of the recapitalization costs. In the words of a few stakeholders consulted, under current labour laws and practices, labour in Zimbabwe is a fixed cost as opposed to a variable cost.

Table 3: Minimum Wage, US\$ per Month, 2009-2013

Country/Year	2009	2010	2011	2012	2013	Total Change	Avg. Annual Growth
Zimbabwe	90.0	189.4	166.5	167.4	246.5	173.84%	28.6%
Zambia	65.8	58.4	83.9	75.8	131.7	100.27%	19.0%
South Africa	507.0	516.4	543.1	621.6	646.4	27.51%	6.3%
Mozambique	88.7	95.5	99.8	108.6	111.6	25.79%	5.9%
Botswana	97.2	108.1	98.4	92.5	105.0	8.04%	2.0%

Source: Author’s calculations based WB Doing Business 2014. Minimum wage applicable to a 19 year old worker or apprentice, June 1st of each year

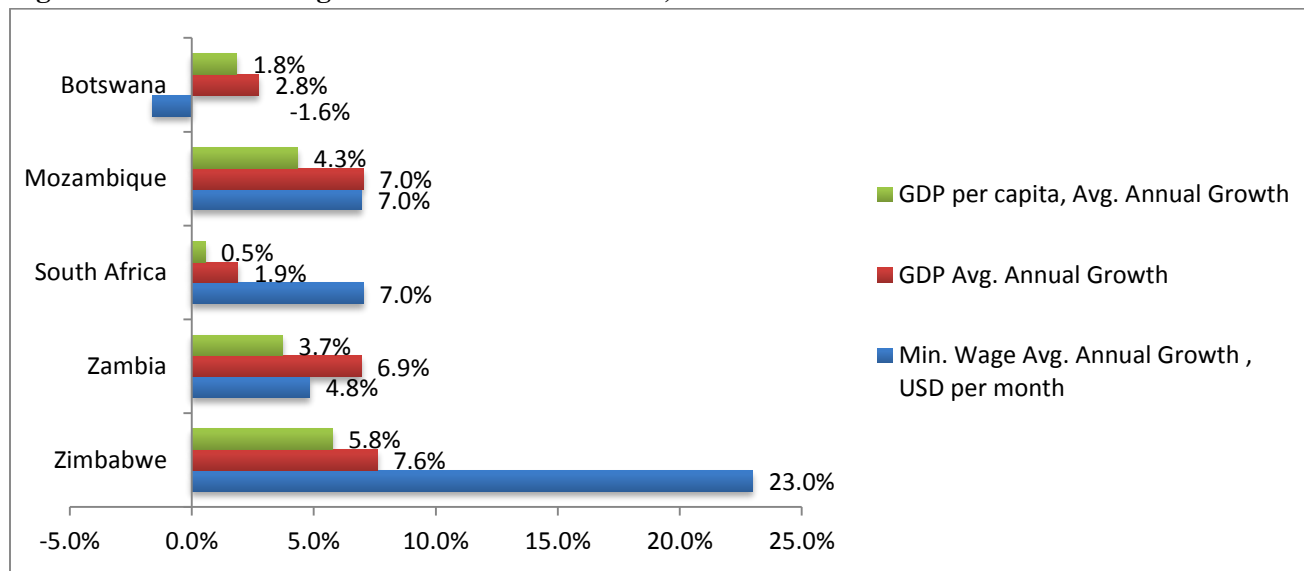
¹³Lopdale, 2014, p. 13

Table 4: Evolution of Minimum Wage and US\$ Exchange Rates, 2009-2013

	Minimum Wage Total Change, % US\$	Minimum Wage Total Change, % Local Currency Unit (LCU)	Local Currency Unit(LCU) Depreciation vs. USD
Zimbabwe	173.8%	173.8%	0.0%
Zambia	100.3%	160.4%	6.9%
South Africa	27.5%	29.4%	13.9%
Mozambique	25.8%	55.9%	9.4%
Botswana	8.0%	7.0%	17.4%

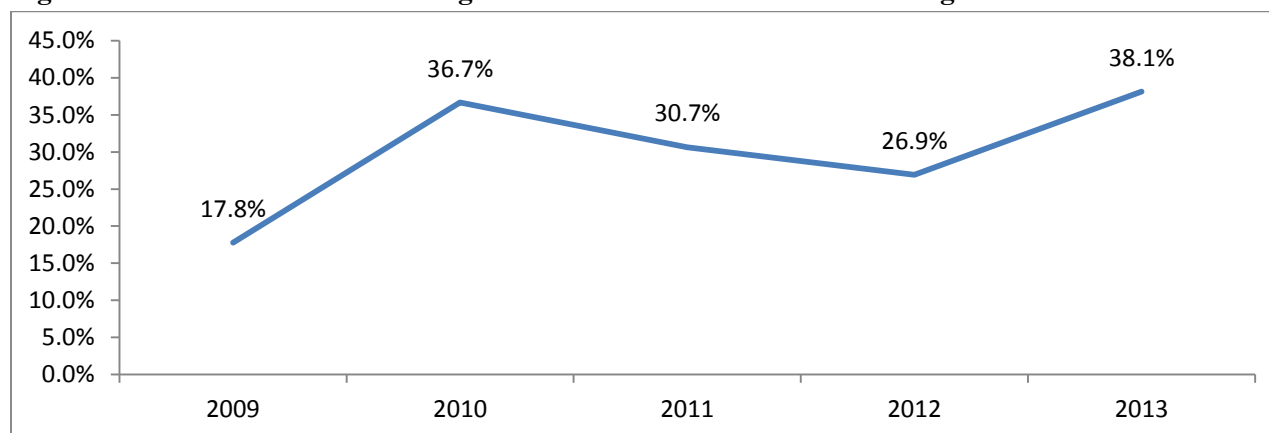
Source: Author's calculations based WB Doing Business 2014 and WB World Development Indicators for USD exchange rates

Figure 1: Minimum Wage Growth vs. GDP Growth, 2009-2012



Source: Author's calculations based WB Doing Business 2014 and WB World Development Indicators for GDP Growth

Figure 2: Zimbabwe Minimum Wage as % of South Africa Minimum Wage



Source: Author's calculations based WB Doing Business 2014.

Table 5: Redundancy Dismissal Costs, Weeks of Wages

Country	Notice Period	Severance Pay	Total Firing Costs, Week of Wages
South Africa	4.0	5.3	9.3
Zambia	4.3	46.2	50.6
Zimbabwe	13.0	69.3	82.3
Mozambique	4.3	33.2	37.5
Botswana	4.9	16.8	21.7
Neighbours Average	4.4	25.4	29.8

Source: World Bank Doing Business, 2014. Average for a worker with 1, 5, and 10 year tenure.

Table 6: Minimum Wage Evolution in Zimbabwe, US \$ per month, Selected Sectors

Sector	2009	2010	2011	2012	2013	Total Increase
Government	100	190	301	301	316	216%
Clothing	90	147	155	155	166	84%
Insurance	232	232	277	391	525	126%
Transport	90	180	229	242	242	169%
Agro – Chemicals	144	154	169	183	183	27%
City of Harare	137	157	245	245	245	79%

Z.E.S.A.	214	214	224	275	294	37%
Commercial	70	150	200	220	246	251%
Banking	273	355	575	575	575	111%

Source: Labour and Economic Development Institute of Zimbabwe, Min of Labour, Public Service and Social Welfare, National Employment Council

Table 7: Minimum Wages of Selected Sectors as a % of Government

Sector	2009	2010	2011	2012	2013
Government	100%	100%	100%	100%	100%
Clothing	90%	77%	51%	51%	52%
Insurance	232%	122%	92%	130%	165%
Transport	90%	95%	76%	80%	74%
Agro – Chemicals	144%	81%	56%	61%	58%
City of Harare	137%	68%	81%	81%	77%
Z.E.S.A.	214%	113%	74%	91%	93%
Commercial	70%	79%	66%	73%	75%
Banking	273%	187%	191%	191%	182%

Source: Author's calculations based on data from Labor and Economic Development Institute of Zimbabwe

Table 8: Zimbabwe's Government Employment Costs to GDP (percentage)

2009	2010	2011	2012	2013	2014 (forecast)
8.4	14.3	18.2	23.0	22.2	21.9

Source: IMF compilation of base case scenario

The Sub – Saharan African countries are at 7.3 percent on average. Zimbabwe has one of the highest employment costs to GDP ratios. It is only second to Lesotho. The ratio in other countries is between 8 and 9 percent.

Table 9: Government Employment Costs to National Expenditure (percentage)

2009	2010	2011	2012	2013	2014
45	45	63.0	68.7	68.4	70

Source: IMF (2013)

B. Power

The electricity supply industry in Zimbabwe is dominated by utilities owned by the government, namely the Zimbabwe Power Company (ZPC) and the Zimbabwe Electricity Transmission and Distribution Company (ZETDC). ZPC operates and manages five power stations: Hwange (Thermal), Kariba (Hydro) Power Station and three smaller thermal stations (Bulawayo, Munyati and Harare).

Table 16 shows that Zimbabwe is the least competitive at 12.72 US Cents per kilowatt hour for all categories of consumption in the commercial sector followed by South Africa for the consumption level of 450 kilowatt hours.

Zimbabwe is again the least competitive under the Industrial level of demand at 9.83 US Cents. This is followed by Mozambique at 4.7 and 5.1 US Cents for 10 KVA and 100 KVA respectively.

The gap in power rates of Zimbabwe with its neighbours is in fact worse than given above. Zimbabwe is suffering from a power short fall and is load shedding. Mining and Industrial users who are on a dedicated supply line are charged **an effective tariff of 14.5 US Cents per kilowatt/hour** to avoid being subjected to load shedding. Private sector stakeholders expressed that anybody serious about their business needs to sign up for dedicated supply service. The average of the 4 other countries at the lowest level of commercial consumption is 8.3 US cents per Kwh, which is 57% of what Zimbabwean businesses pay for electricity¹⁴.

The tariffs are structured on a three part system incorporating a fixed monthly charge; a demand charge which is defined by the level of peak demand served in kilowatts or kilovolts; and a volume charge (defined by the energy served and reflected on the definition of blocks). Volume charges may be differentiated by time of use (TOU). Demand charges reflect the load exerted on the system by a user. Peak demand is a critical cost driver in the power sector because it defines the amount of installed capacity needed to provide a given volume of electricity.

Kariba Hydro Power Station located below Kariba dam is the major source of power in the country and generates 750 MW. Hwange follows Kariba, a coal fired station that generates on average 500 MW with an installed capacity of 920 MW. The three other stations contribute on average 70 MW, with Harare – 20 MW, Bulawayo – 30 MW and Munyati – 20MW against a combined capacity of 230 MW. The ZETDC manages the transmission and distribution infrastructure and is the transmission and system operator as well as being involved in the trading of electricity in the Southern African Development Community (SADC) region. There are also small independent power producers who predominantly produce for their own consumption (Table 10).

The performance of the thermal power stations is characterized by poor plant availability. Plant availability at Hwange Power Station is particularly poor considering that substantial amounts of money have been invested in rehabilitation and major works. Output is still far lower than projections calculated by a specialist generation consultancy Water and Power Company Services (WAPCOS) India, over US\$ 110 million having been spent since 2009.

Poor and inconsistent coal supplies and frequent plant breakdowns have adversely affected production from the smaller thermal power stations. Coal supplies are affected by a combination of unreliable supplies from the coal mines, but more so by the weak performance of the National Railways of Zimbabwe.

The Zimbabwean tariff is a blended tariff based on the composite cost of the various sources of power. Zimbabwe's Kariba generated power is highly competitive at 0.52 cents per Kilowatt/hours (see Table 11 and 13). Zambia and Zimbabwe generate hydropower at the same site at Kariba dam along the Zambezi River. For Zimbabwe this is the major and most reliable source of power contributing about 60% of all power generated.

In this context, the comparison of effective rates is more meaningful when understood in light of the sourced from which power is generated. Generation in Zimbabwe at the thermal power stations is very inefficient and expensive and highly subsidized by cheap generation in Kariba.

The government should review the power sector model as prevailing at ZESA with the view to optimize benefits from Kariba. Currently the main benefit is to avail power from a reliable source at a relatively low cost. The benefit on cost is being washed away masking inefficiencies at the thermal power stations. Whilst it is commendable to keep all the thermal power stations running it is depriving the economy of resources which are

¹⁴ In some instance key operations have run on generators, which is probably more costly eg banks, wholesalers, for which the extra costs are passed on to the final consumers, in the telecoms sector rural base stations are powered by generators, which is costly, a factor that is commonly used to justify mobile phone charges

being ploughed into them. As mentioned above US\$ 109 million has been spent at Hwange Power Station, but the country is still to receive the fully anticipated benefits from the investment.

Options to explore include:

- With the objective of reducing power costs to the economy, ZPC could be unbundled by separating Kariba into an entity 100 % owned by government and invite private sector participation into the existing thermal power stations. This should bring about competition in generation. Creating competition and private sector involvement should lead to a reduction of waste and inefficiencies in the sector resulting in lower generation costs. Several options exist for this, such as combining the 3 thermal stations into one company and inviting private shareholders through a listing on the stock exchange with a major strategic partner or split the thermal power stations into three different companies and invite private investors as strategic partners with government.
- It is recognized that one of the challenges facing government is limited fiscal space; Kariba could be used strategically for new expansions in hydro generation and to support the national budget. This could be done through a memorandum and articles that restrict dividend payments to ensure that sufficient reserves are maintained for dam wall maintenance and future expansion. Also for a set period a stabilization fund could be established from the profits for a target period whilst new arrangements for thermal power generation improve productivity to prevent shocks on the tariff. As alluded to above private sector participation would minimize the inefficiencies at the thermal stations and the economic benefits from Kariba would supersede access to electricity alone but to include a financial benefit from profits, which are now being washed away.
- Zimbabwe domestic consumers use electricity for home heating. The model where electricity is used for this purpose arose from prior to independence where the country had excess cheap power from Kariba. With demand exceeding supply and the high cost of building new power stations it is recommended that the use of power by domestic consumers be reviewed with the view to promote the use of LP (Liquefied Petroleum) gas. It is cheaper and will release a lot of power for commercial use. Effective demand for power as measured by what can be paid for is not as high as is currently consumed. The collection efficiencies are not as high as evidenced by the arrears at ZETDC.

It is recommended that a study is commissioned to evaluate the sector holistically to optimize the use of power, involvement of the private sector into existing power stations and assessment of how the country could derive financial benefit from Kariba Power Station.

Table 10: Independent Power Producers

PRODUCER	QUANTITY
Nyamigura	2.6 GWh
Hippo Valley Estates	55.2GWh
Triangle	111.4 GWh
Chisumbanje Ethanol Plant	

Source: Zimbabwe Energy Regulatory Authority (ZERA)

Table 11: Performance of Zimbabwe Power Company

ZPC Performance	Target GWh	2013 Actual GWH	2012 Actual GWh	2011Actual GWh	2010 Actual GWh	2009 Actual GWh
Hwange	3 720	4 170	3 133	3 419	2 886	1 852
Kariba	5 135	4 985	5 372	5 201	5 806	5 464

Harare	193	150	60	73	0	25
Munyati	223	202	203	193	80	0
Bulawayo	223	187	178	125	0	0
Total	9 494	11 713	8 946	9 013	10 781	9 350

Source: ZERA

Table 12: Average Capacity Utilization

Source	Established Capacity (MW)	Capacity Utilization (MW)	Percent Capacity Utilization
Hwange	920	575	63
Kariba	750	750	100
Bulawayo	90	35	39
Munyati	120	31	26
Harare	90	45	55
Total	1970	1 436	73

Source: ZERA

Table 13: Cost of Power by Source

Source	Cost per MW (US Cents)	Average Produced 2011 – 2013 GWh)	Average Total Cost per Year	Percent of Total Produced	Percent of Total Cost
Hwange	8.14	3 276	266 670 000	36.00	73
Kariba	0.52	5 286	26 430 000	58.00	7
Bulawayo	15	66	9 900 000	0.07	3
Munyati	15	198	29 700 000	2.00	8
Harare	16	200	32 000 000	0.20	9
Total		9 026	364 700 000		

Source: ZERA

Table 14: Regional Comparison Hydro Power Generation Costs

Country	Cost Per MW (US Cents)
Zimbabwe	0.52
Mozambique	2.00
Zambia	2.00
South Africa	2.7
DRC	2.50

Source: Infrastructure Country Diagnostic Power Tariff Database

Table 15: Regional Comparison Thermal Power Generation

Country	Cost Per MW
Zimbabwe (Hwange Power Station)	8.14
Botswana (Moropule)	4
South Africa	4.7

Source: Infrastructure Country Diagnostic Power Tariff Database

Table 16: Non Residential Tariff by Level of Consumption (US Cents)

Country	Commercial Level of Consumption (kWh) per Month			Industrial Level of Demand		
	450	900	2 500	5 000	10 KVA	100 KVA
Mozambique	9.0	8.0	7.3	7.3	4.7	5.1
South Africa	11.4	7.7	4.7	4.7	2.7	2.7
Zambia	5.1	4.4	3.8	3.8	2.3	2.5
Botswana	7.7	7.2	6.8	6.8	3.3	4.0
**Zimbabwe	12.72	12.72	12.72	12.72	9.83	9.83

Source: Infrastructure Country Diagnostic Power Tariff Database

** Source: Zimbabwe ZERA Standard charge including Rural Electrification Levy of 6 %.

Power Utilization

Table 17: Electricity Use by Consumer Type

Year	Agriculture and Forestry	Mining and Quarrying	Manufacturing, Transport and Construction	Domestic Consumers	Government, Hotels, Commerce and Others	Total
2010	464	914	2 197	2 283	1 508	7 367
2011	511	1 087	2 156	2 365	1 551	7 940
2012	499	1 086	1 960	2 709	1 636	7 891
2013	490	1 246	2 043	2 878	1 631	8 288
Total	1 964	4 334	8 357	10 504	6 326	31 486

Source: Zim Stat

Table 18: Percentage Electricity Use by Consumer Type (%)

Year	Agriculture and Forestry	Mining and Quarrying	Manufacturing, Transport and Construction	Domestic Consumers	Government, Hotels, Commerce and Others	Total
2010	6	12	30	32	20	100
2011	6	14	27	33	20	100
2012	6	14	25	34	21	100
2013	6	15	24	35	20	100
Average	6	14	26	34	20	100

Source: Author's compilation

Peak Demand

There are two peak demands; morning (6a.m. to 10 a.m.) and evening (5 p.m. to 8 p.m.) The current peak level is 1 700 KWh. The morning peak is skewed in favour of industrial consumption. The evening one is driven by domestic consumption.

A high peak demand that is driven by domestic consumers can be costly and wasteful as it is for a short period in a cycle, and where commercial usage is constrained, generation is reduced unless power can be sold outside the national grid during the low peak cycle.

C. Water

Compared to the other factors included in this study, the perception on whether water costs were higher in Zimbabwe as opposed to the region is more mixed, with very few interviewees claiming the former. This may be due to the fact that prices are more varied (i.e. the pricing system is more decentralized and is more dependent on location), and possibly the intensity with which the business uses this resource may have influenced their responses. Its accessibility, though, is essential for the success of agricultural and many manufacturing activities.

Water has been declared a national resource in Zimbabwe and is under the management of the Ministry Water Resources and Management. The Zimbabwe National Water Authority (ZINWA) is responsible for constructing and maintaining dams for the supply of water to local authorities (cities, towns, growth points and rural districts). It sells raw water to local authorities and farmers, and treated water directly to commercial, industrial and domestic consumers in small towns. All cities buy raw water from ZINWA, treat it, and distribute to consumers ZINWA is therefore responsible for the primary cost of water.

The ZINWA Act allows ZINWA to fix the charges for the sale of raw water from dams and treated water from its water works. Charges have to be approved by the Minister of Water Resources and Management. The Minister's approval is based on consideration of providing, operating or maintaining the service concerned, proposed improvements and other relevant economic factors. ZINWA has a blend price for raw water, one for agricultural purposes, industrial and mining uses. The intention of the blend price system is to ensure that costs of water from dams built for newer and smaller communities is not too high. However, this has been viewed in the past to have had perverse side effects on price, carrying non related costs, impacting on urban investment decisions (WB 2011, Study by Economic Consulting Associates – Zimbabwe Urban Water Tariff Study 2011). As a result municipalities that purchase raw water from ZINWA consider the price of raw water to be too high. The knock on effect is that on evaluation of water charges in relation to affordability, the local authorities are not factoring in affordability in the determination of their prices.

As discussed earlier, the management of water is a decentralized a system, and each local authority has its own charges. This is also the case with Zambia and South Africa. Each city or region has its own tariff. Botswana has a national tariff and its water is under management of Water Utility Corporation.

Retail tariffs for clear water vary between municipalities and between user categories. Typically tariffs in all the countries vary with consumption, with higher tariffs applied to higher consumption. Non - residential users are generally charged rates higher than residential users. In Zimbabwe residential areas are categorized into high and low-density suburbs with low-density residents charged at a higher rate. Johannesburg provides free water of between 2 – 15 cubic meters per month depending on the poverty of residents (see Table 20).

Fixed charges are raised per bill for maintenance of the metre. The charges by Harare City Council and ZINWA are the highest. The charges in Zambia are the lowest. In Zambia the fixed charge is determined using the rule that the charge will not exceed the first 6 cubic meters of water. In the case of Harare the fixed charge of US\$80 for industrial users represents 100 liters of water. This is proportionally too high considering the logic for the charge. The charge of US\$ 5 for domestic consumers represents 20 liters of water; this is the upper end of the first block of 1 – 20 at the rate of 0.25 US Cents per liter. Zambia charges its domestic consumers a fixed charge of US\$ 1.00. The charge in Botswana of US\$ 1.25 is in line with Zambia and the principle to keep the fixed charge as low as possible.

Zimbabwe's fixed charges are the least competitive amongst the countries in the region and this may imply a motive that is at odds with the intended purpose. Their high level becomes some form of fixed tax on the consumers. Fixed charges are fixed costs and are assessed regardless of consumption. There should not be used as a form of revenue.

Regarding commercial and industrial users, Botswana is overall the most expensive followed by South Africa. Higher tariffs are charged for higher consumption bands in order to place incentives to rationalize water consumption. Of the countries being considered Botswana is the most water stressed country, hence its high tariffs to encourage conservation. Zambia and Zimbabwe are in a much better position in accessing water from a price perspective, with Zambia being in the most advantageous position.

Beyond the issue of fixed charges, an issue that emerged during the consultations was that ZINWA sells raw water to farmers and other users regardless of whether they helped with dam construction or borehole drilling. Irrigation farmers construct and maintain their own dams. They also drill their boreholes without the aid of ZINWA¹⁵.

In particular, Zimbabwe Commercial Farmers' Union is grieved by the ZINWA charges for raw water. The farmers construct the dams and maintain them and do not see the benefit of the money paid to ZINWA. ZINWA estimates the volume of water that farmers use for irrigation and the farmers hold that the estimates used are too high resulting in unaffordable bills. The charges by ZINWA combined with the electricity used to pump water are prohibitive and discourage winter farming.

Agriculture in Zimbabwe is operating at a level that is below its potential. To encourage investment in agriculture at this moment of the economy's recovery, the authorities could consider exempting farmers from paying for raw water where the farmers have constructed and maintain their dams. Farmers have little or no access to finance, where it is available it is very expensive and is not structured to fund agricultural activities, levying ZINWA charges is a burden in the circumstance discouraging use of land in winter.

It was also noted that the pricing models in use are not sensitive to water intensive industries. The Cold Storage Commission based in Bulawayo has an abattoir that is based in the industrial district of Bulawayo. Bulawayo usually experiences water shortages, which necessitates rationing and raising penalties for use in excess of allocation. The nature of operation of the Cold Storage Commission requires a lot of water and for many years has been under allocated resulting in the company incurring high water bills. The penalties assessed result in a very high effective tariff of water. It is thus recommended that local authorities review tariffs for industries where water is a critical input.

Table 19: Raw Water Charges

Sector	ZINWA (US\$) per 1 million liters
Industrial	9.45
Commercial	9.45
Local Authorities	6.00
A1 Farmers	5.00
Commercial Farmers	6.82
Communal	4.50

Source: ZINWA

¹⁵ It was noted that drilling of boreholes has an effect on the water table hence the charge by ZINWA to regulate the use of water and avoid the depletion of this precious resource.

Table 20: Domestic Clear Water Tariffs

City / Country	ZINWA	Harare	Lusaka	Gaborone	Johannesburg
	US \$	US \$	US \$	US \$	US \$
Domestic High Density					
Fixed charge p.m.	5.00	5.00	1.00	1.25	
1 – 6	0.40	0.25	0.45	0.23	-
6 – 10	0.40	0.25	0.45	0.23	0.42
6 – 15	0.40	0.25	0.53	0.91	0.55
15 – 20	0.40	0.50	0.61	1.25	1.00
20 – 30	0.40	0.50	0.61	1.25	1.50
31 – 40	0.40	0.75	0.61	1.92	1.60
41 – 50	0.40	0.75	0.61	2.37	1.80
51 – 100	0.40	1.00	0.72	2.37	1.80
>100	0.40	2.00	0.88	2.37	1.80
Sewer charges		5.00			
Domestic Low Density					
Fixed Charge	5.00	11.00	1.00	1.25	
1 -6	0.40	0.40	0.45	0.23	0.42
6 – 15	0.40	0.40	0.53	0.91	0.55
15 – 20	0.40	0.40	0.53	0.91	1.00
21 – 30	0.40	0.80	0.61	1.25	1.50
31 – 40	0.40	1.00	0.61	1.92	1.60
41 – 50	0.40	1.00	0.61	2.37	1.80
51 – 100	0.40	1.50	0.72	2.37	1.80
>100	0.40	2.00	0.88	2.37	1.80
Sewer charges		11.00			
Commercial High Density					
Fixed charge	25	80.00	2.00	2.50	
1 -5	0.40	0.80	0.44	0.68	1.96
5 – 15	0.40	0.80	1.03	1.82	1.96
15 – 25	0.40	0.80	1.03	2.39	1.96
25 – 40	0.40	0.80	1.03	3.75	1.96
40 – 100	0.40	0.80	1.03	4.66	1.96
100 – 170	0.40	1.20	1.17	4.66	1.96
>170	0.40		1.17	4.66	2.00
Sewer charges		15.00			
Commercial Low Density					
Fixed charge pm	25.00	80.00	2.00	2.50	
1 – 5	0.40	0.80	0.44	0.68	1.96
5 – 15	0.40	0.80	1.03	1.82	1.96
15 – 25	0.40	0.80	1.03	2.39	1.96
25 – 40	0.40	0.80	1.03	3.75	1.96
40 – 100	0.40	0.80	1.03	4.66	1.96
100 – 170	0.40	1.20	1.17	4.66	1.96
Sewer charges		15.00			2.00

Source: Author's compilation

Table 21: Industrial Consumers

City / Country	ZINWA	Harare	Lusaka	Gaborone	Johannesburg
Fixed Charge	25.00	80.00	2.00	2.50	
1 – 5	0.80	0.80	0.44	0.68	1.96
5 – 15	0.80	0.80	0.44	1.82	1.96
15 – 25	0.80	0.80	0.44	2.39	1.96
25 – 40	0.80	0.80	1.03	3.75	1.96
40 – 100	0.80	0.80	1.03	4.66	1.96
100 – 170	0.80	1.20	1.03	4.66	1.96
170 – 200	0.80	1.20	1.17	4.66	1.96
>200	0.80	1.20	1.17	4.66	2.00

Sources: ZINWA; Harare City Council; Botswana – Water utilities Authority; Zambia

D. Finance

The financial sector is the engine that puts in motion productive and economic activities ranging from basic means of payment for monetary transactions, to complex schemes for financing investment and trade. Although declining, the cost of money in Zimbabwe is still extremely expensive when compared to regional levels. The average lending rate stood at 28% in 2013, which is nearly double the level observed in Mozambique (15.3%, the second highest in the regional sample) and slightly more than 3 times the levels observed in South Africa where the average lending rate stood at 8.5% (Table 24).

These high lending rates are reflecting the combined effect of several factors, but “paramount among them is widespread perceived country risk and limited investor confidence”¹⁶ which is constraining the ability of the financial system to mobilize savings to be used for investment. About 90% of deposits are short-term, resulting in a mismatch with longer-term investment needs.¹⁷ For a gauge of both domestic and international investors perceived country risk, one only needs to look at Zimbabwe’s low and deteriorating ranks in international indexes such as World Economic Forum (WEF) Global Competitiveness Index (GCI) (where the country ranked 131st out of 148 economies in the former), and the World Bank Ease of Doing Business (170th out of 189), just to cite a couple of the most influential ones.

With the average lending rate projected to run at 22% in 2014¹⁸, and domestic institutional depositors such as the pension funds requiring at least a 7% return for deposits longer than 3 months, the intermediation costs in Zimbabwe are estimated to be about 15%, which are huge in comparison to the regional averages (see Table 22, below)¹⁹. The gap by this measure is even larger, as the intermediation costs are 5 times the level of Zambia and South Africa, where the intermediation process is more efficient, and about twice as large as in Botswana and Mozambique.

Besides risk, there is evidence of other factors causing high interest rates. One is the rising cost of non-performing loans, which stood at 12.6% in 2012²⁰, increasing to 15.9% at the end of the last quarter 2013²¹. Another issue is

¹⁶ Piorela, Newfarmer et.al (2014), p. 14

¹⁷ IDA, IFC, MIGA (2013), p. 11

¹⁸ The Economist Intelligence Unit Forecast, Country Report April 2014.

¹⁹ Average deposit rates for Zimbabwe were not publicly available. Zimstat latest report indicates a range of 3 to 8% on deposits longer than 3 months.

²⁰ Pifaretti (2012), p. 42-43

a high bank concentration of assets, with the top 5 banks in Zimbabwe accounting for 65% of bank assets. Operating costs also remain high - where the latest available measure placed bank overhead to total costs at a very high 10.3%, compared to a sub-Saharan Africa average of only 5.2%²².

Another factor contributing to the uncertainty in lending decisions (and thus to higher interest rates) is the unavailability of reliable credit information and collateral mechanisms. The degree of development of such systems throughout the region is varied, with South Africa having in place the most robust combination of quality of the information shared and private credit bureau coverage as a percentage of the adult population. According to the World Bank, Zimbabwe's current laws are the most restrictive (or not conducive) among its neighbours to sharing information about creditworthiness among lenders (see Table 23, Credit Information Systems Development).

Up to this point, the discussion has centered on the direct costs of finance, as expressed in higher lending rates. However, higher lending rates, while imposing higher costs on Zimbabweans that are lucky enough to be able to borrow, also impose costs to firms that cannot access enough finance (or can't access finance at all, for that matter) for working capital to increase the scale of their activities and reduce their per unit costs, to purchase inputs when prices are convenient, to reduce unutilized labour due to high redundancy costs, or to finance investments in much needed plant and equipment improvements. All of these costs are very real and placing Zimbabwean firms at a competitive disadvantage, although they are harder to measure. Likewise, higher interest rates also reduce the credit demand from the enterprise perspective.

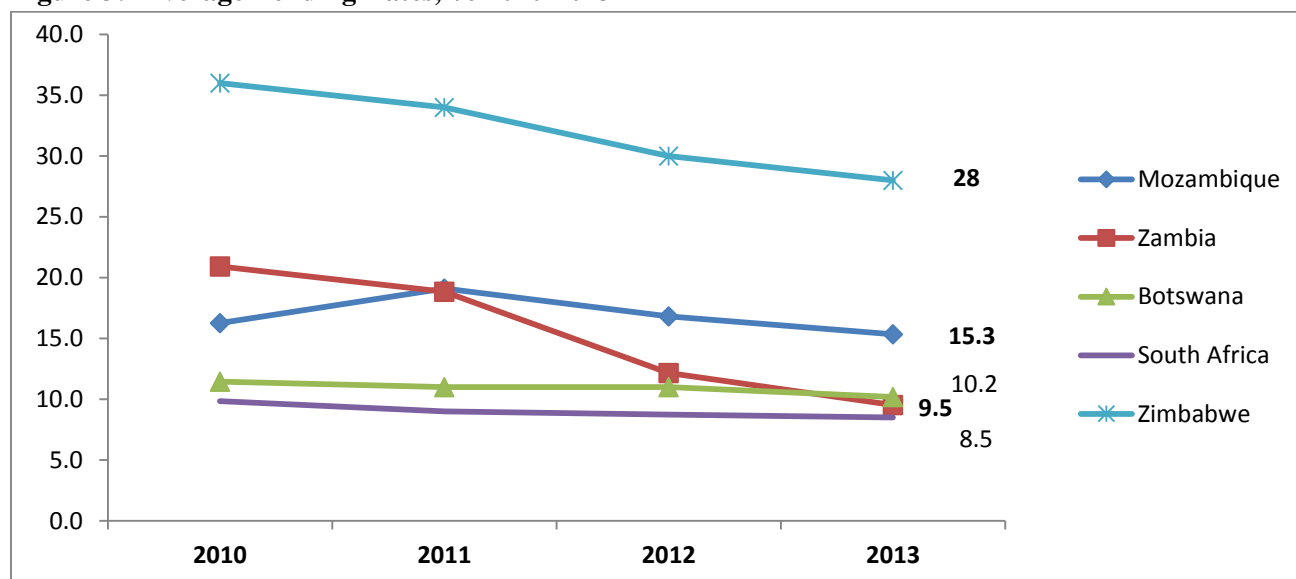
Indeed, enterprise surveys provide an indication of the severity of the access to finance constraint in the Zimbabwean economy (see Figure 4). Only 12.5% of firms reported having a bank loan, 13% were using banks to finance investments and working capital, and only 5.5% of working capital needs were financed by bank loans. Most of these levels are half of the Sub-Saharan Africa average, and the Sub-Saharan average in turn is at half the levels reported by all countries covered by the World Bank enterprise surveys.

In sum, while much more is needed to restore the competitiveness of Zimbabwean firms, risk reduction in the economy to reduce the cost of capital and improve access to finance should be a priority in light of the higher costs it imposes on domestic firms.

²¹ World Bank, Zimbabwe Economic Briefing: February, 2014.

²² The latter 3 figures are for 2011, sourced from WB World Development Indicators

Figure 3: Average Lending Rates, % 2010-2013



Source: IMF International Finance Statistics; the Economist Intelligence Unit

Table 22: Intermediation Costs % points

Country	Lending Rate - Deposit Rate % points			
	2010	2011	2012	2013
Mozambique	6.6	6.1	5.4	6.5
Zambia	13.5	11.8	5.2	3.0
Botswana	5.9	5.9	7.4	7.1
South Africa	3.4	3.3	3.3	3.3

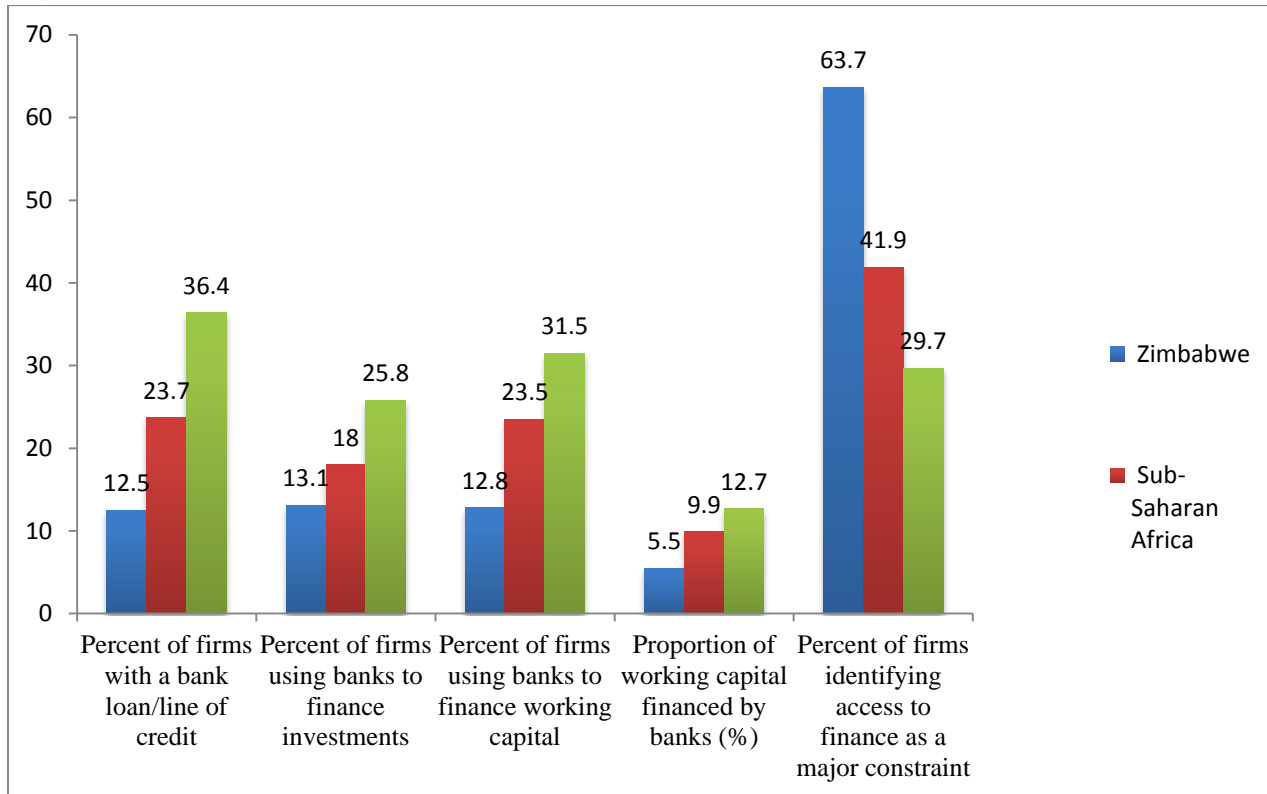
Source: IMF International Finance Statistics; the Economist Intelligence Unit

Table 23: Credit Information System Development

Country	Depth of Credit Information Index (0-6)	Public registry coverage (% of adult)	Private Bureau coverage (% of adults)
Botswana	4	0	60.7
Mozambique	4	4.3	0
South Africa	6	0	55.6
Zambia	5	0	12
Zimbabwe	1	0	3.7

Source: World Bank Doing Business, 2014.

Figure 4: Access to Finance by Zimbabwean Firms, Selected Indicators



Source: World Bank Enterprise Surveys. 599 Zimbabwean firms participated in the survey conducted between May 2011 and March 2012.

E. Transportation and Trade Logistics

A critical dimension of competitiveness is the ability of businesses to access imported inputs easily at competitive prices. In addition to tariffs and other trade taxes (discussed in the section below), complex procedures, permits and other charges all serve to increase the cost of inputs. Moreover, if businesses are not able to procure inputs at short notice, businesses inventory costs rise and opportunities to purchase at favourable prices are missed.

While all businesses are subject to logistical costs, the incremental costs Zimbabwean firms pay relative to their neighbours, particularly on imports, represent a very significant competitive disadvantage (See Table 24). According to the World Bank, the costs of shipping for exports a 20 foot container from a warehouse outside Harare to Durban (the most frequently used port by all the countries compared) is US \$3,765. That figure is between 20-25% higher than the also land-locked Botswana and Zambia, and the gap is much larger with South Africa.

When shipping imports from Durban to the respective business capitals, the gap is even wider. At US \$5,660 per container, Zimbabwe costs are roughly 36% higher when compared to its land-locked neighbours. Expressed as percentage of freight value, Zimbabwean businesses can expect to pay 18.8% to export, and 28.8% of freight value when importing. These comparative figures place Zimbabwean businesses at 3-5 percentage point disadvantage visa vis Botswana and Zambia when exporting, and more than 10 percentage points when importing. When compared to South Africa, the costs of exporting are nearly double and three times those of importing, all of which highlights the need to take action to help reduce this wide gap.

The costs mentioned above are based on freight moving from each business capital (Harare, Gaborone, Lusaka, and Johannesburg) to the most frequently used port (Durban), and cover documents preparation, customs clearance and control, port and terminal handling, and in-land transportation. The latter is the largest component of the four. But the distances to Durban are different from each business capital. A closer inspection of the inland transportation costs, though, reveal that on a per tonne kilometre basis (considering the different distances involved from the business capitals to Durban), Zimbabwe's transport rates are almost on par with those of South Africa, and significantly less costly than Botswana, but still 70% higher than in Zambia when considering export bound freight (see Table 25). However, when considering import-bound freight, at 0.26 US cents per tonne km, Zimbabwe inland transportation costs on a per tonne km basis are almost on par with Botswana's, 30% higher than in South Africa (0.18 cents) and more than double Zambia's costs (0.12 cents). So, even when controlling for distance, transport costs in Zimbabwe are significantly higher when compared regionally.

Rail freight is about 40% cheaper relative to road transport (see Table 26); however, unpredictable delivery times and the poor maintenance of the network restrict its use to high-volume low value items that are not time-sensitive. "Estimations are that only 10% of goods are transported by rail. Rail freight has dropped from 14.3 million tons in 1990 to less than 3 million tons in 2009"²³.

Poor road infrastructure is part of the higher transport costs. Of the country's total road network of nearly 90,000 kilometres, the proportion of those considered to be in fair to good condition has declined from 73% in 1995 to only 60% in 2011, according to the African Development Bank. In turn, the poor state of the roads makes it dangerous to travel by night. According to stakeholders in the freight forwarding industry, the charges per day of delay range from US\$250-US\$500.

Reportedly, there are also limits on competition and foreign ownership which may be contributing. "Road shipping services are one of the sectors expressly reserved by domestic investors, and Zimbabwe's Investment Authority limits foreign ownership to 35% in reserved sectors, although exceptions can be granted."²⁴

²³ Pierola and Newfarmer, 2014. p.80

²⁴Ibid, p.78

Additionally, although Zimbabwe Transporter's Association reports having more than 100 owners owning about 4,000 trucks, the industry is dominated by five large firms who then subcontract individual operators.

Likewise, according to stakeholders consulted, transport companies pay additional fees when transiting within Zimbabwe, including excessive roadblocks and tolls, and police fines (regarded by stakeholders to be more of revenue raising activity). The impact of road blocks and unmeasured implicit costs can be understood from the reality that a truck travelling from Harare to Bulawayo, a distance of 430 kilometres, can expect to be stopped at a minimum of at least 15 road blocks. For each road block a truck may stop for 10 minutes. The total time on a return trip would be 300 minutes of stoppage time. It is estimated that there are 4 000 active local trucks, this sums to 1.2 million minutes (20 000 hours) per trip for all trucks. This is an immense cost of idle time contributing to under - utilization of assets in the economy. Trucks use more diesel on low gears, therefore they consume more diesel to prepare to stop and start. The economy cannot afford this high degree of waste as the cumulative effect of this waste is an enormous cost. The result is reduced economic activity and scale at which truckers are operating.

Beyond transport, importing and exporting in Zimbabwe is subject to red tape, excessive and opaque processes, frequent solicitation of informal payments, and importantly, multiple physical inspections which are negatively impacting the costs of trading.

In this regard, it is useful to examine the time costs associated with importing and exporting (Figures 5 and 6). In Zimbabwe, the most time consuming activity is preparing documents. Time to prepare documents consume 33 out of the 53 days required for exports and 42 out of the 71 for imports. This points to lack of transparency, easiness, and overregulation of international trade.

Previous studies reported that practically "all agricultural commodities and inputs as well as medicines imported or exported from Zimbabwe are subject to specific licensing requirements, with many of them requiring multiple licenses" (sometimes from different departments in the same ministry). "All traders are issued with non-transferable and quantity bound permits valid for 3 months and limited to 30 months."²⁵

It is worth highlighting that stakeholders in the fertilizer sector reported that the process of obtaining an export license was not only lengthy and costly, but the lack of predictability in obtaining it severely limited their ability to compete as their credibility with international buyers was diminished. So the costs go beyond those of complying with onerous regulation .Diminished exports and sales contribute to less capacity utilization, adding to their ability to compete in domestic markets as well.

Moreover, logistics professionals operating in Zimbabwe reported in an international survey that they typically deal with 10 different government agencies in the clearance process, and that nearly 14% of their import shipments are subject to physical inspection and **about 42% to multiple physical inspections** (Table 27). By way of comparison, professionals in South Africa and Zambia typically deal with only 2 to 5 agencies, and only 8% of their shipments are subject to physical inspection (with an even lower percentage subject to multiple inspection). Likewise, about half of respondents in Zimbabwe reported that they often find solicitation of informal payments in the clearance process, and none of them thought that clearing customs was a transparent process.

Two factors appear to be compounding the problems. According to interviews with freight forwarding professionals, the information publicly available on import and export requirements is fragmented. They are of the view that it should be made in a format that the public can easily consume. They also reported that there are frequent errors delaying the customs clearing process due to custom broker incompetence in preparing required documentation. They expressed the need to create standards and a license at the individual practitioner level.

²⁵ Fernandes and Kirk, 2014, p. 28

Table 24: Costs and Time to Trade

Country	Cost to export (US\$ per container)	Cost to import (US\$ per container)	Import to Export Costs Ratio*	Time to export (days)	Time to import (days)	Cost to Export as a % Freight Value*	Cost to Import as a % of Freight Value*
Botswana	3,045	3,610	1.19	27	35	15.2%	18.1%
South Africa	1,705	1,980	1.16	16	21	8.5%	9.9%
Zambia	2,765	3,560	1.29	44	49	13.8%	17.8%
Zimbabwe	3,765	5,660	1.50	53	71	18.8%	28.3%
S.S. Africa	2,108	2,793	1.32	31	38	10.5%	14.0%

Source: *Author's calculations, World Bank Doing Business, 2014. The costs measure the charges for ocean transport levied on a 20-foot container in U.S. dollars weighing 10 tons, valued at US\$20,000.

Table 25: Costs to Trade on US\$ per tonne/km basis

COST TO EXPORT (US\$)				
Details	S. Africa	Zimbabwe	Zambia	Botswana
Inland transportation and handling	1,000	3,000	2,100	2,500
Transportation Charge per Ton	100	300	210	250
Km. Business Capital to Durban	557	1760	2126	915
US\$ per tonne/km	0.18	0.17	0.10	0.27
COST TO IMPORT (US\$)				
	S. Africa	Zimbabwe	Zambia	Botswana
Inland transportation and handling	1,000	4,500	2,500	2,600
Charge per Ton	100	450	250	260
Km. Business Capital to Durban	557	1760	2126	915
US\$ per tonne/km	0.18	0.26	0.12	0.28

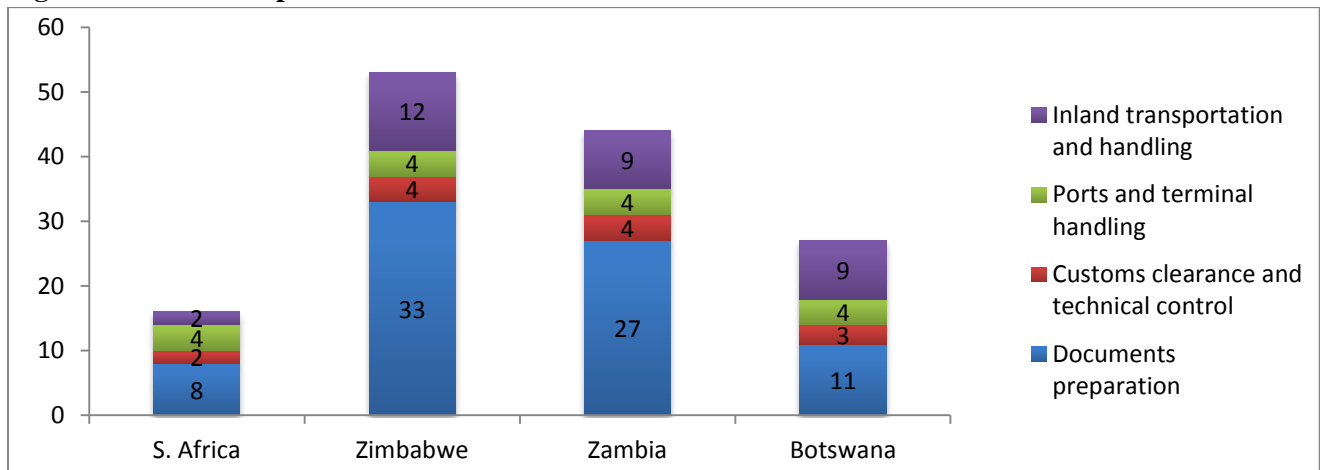
Source: *Author's calculations, World Bank Doing Business, 2014. Cost measures the charges levied on a 20-foot container in U.S. dollars weighing 10 tons, valued at US\$20,000. Business Capital to Durban distance provided by Zimbabwe Transport Association based on figures reported by FESARTA.

Table 26: Regional Rail Rates

Railway Companies	US Cents/Tonne/KM
National Railways of Zimbabwe (NRZ)	0.08
Zambia Railways (ZR)	0.15
Beitbridge-Bulawayo Railway (BBR)	0.11
Botswana Railways (Morupule-Zim)	0.08
CFM Mozambique	0.07

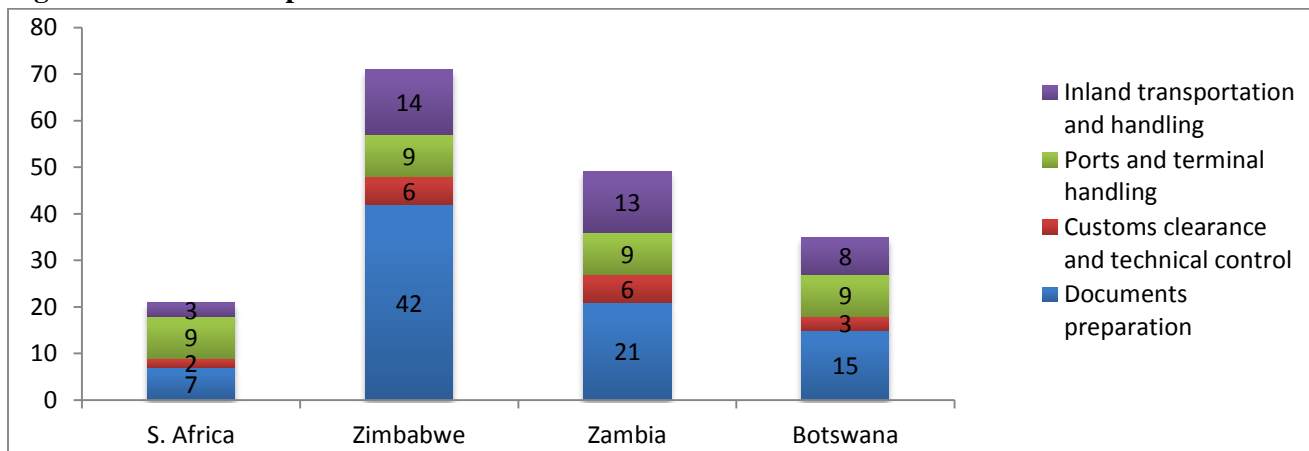
Source: Interviews with NRZ management. Non freight weighted rates. Botswana Railways rate is based on coal, while BBR offers a flat rate regardless of commodity.

Figure 5: Time to Export



Source: World Bank Doing Business, 2014.

Figure 6: Time to Import



Source: World Bank Doing Business, 2014.

Table 27: Customs Clearance, Selected Indicators

	ZIMBABWE	S. AFRICA	ZAMBIA
Number of agencies – exports	10	2	5
Number of agencies – imports	10	2	5
Physical inspection (% of import shipments)	13.69%	8.64%	8.89%
Multiple inspection (% of import shipments)	41.83%	2.10%	1%
Solicitation of Informal Payments (% of responses saying nearly always or often)	50%	7.14%	0%
Transparency of Customs Clearance (% of responses answering nearly always or often)	0%	42.90%	66.70%

Source: Logistics Performance Index (LPI), 2014.

F. Tariffs and Trade Taxes

High levels of tariffs, duties, and other taxes hurt the competitiveness of firms by raising the costs of accessing imported inputs. Empirical research at the firm level has found that the propensity of a firm to import some of its inputs is much higher if the firm exports some of its products, than if the firm sells all of its output in the domestic market.²⁶ In landlocked countries such as Zimbabwe, where transportation costs need to account for longer distances, the tariff compounds with what is already a disadvantage in procuring inputs competitively. To the extent that tariffs are higher than those of the regional competitors, the lower tariffs would confer to them an advantage over Zimbabwean producers, reducing the ability of all domestic firms to compete both in export and domestic markets, but even more so to firms that do export.

Zimbabwe operates multiple tariff schedules, a Most Favoured Nation (MFN) rate extended to all World Trade Organisation (WTO) members, along with tariff rates under preferential trade agreements such as the Common Market for Eastern and Southern Africa (COMESA), SADC, and bilateral trade agreements with South Africa, Botswana, Malawi, Mozambique and Namibia.

The National Trade Policy 2012-2016 regards tariffs as a policy tool for encouraging domestic production and diversification. Moreover, according to Annual Reports of the Competition and Tariff Commission, tariffs and other border barriers appear to be motivated by a concern to protect local industry, encourage infant industries, stimulate exporting and regional integration, and to favour economic activities that have broad social impact and or have the potential to become competitive. In this context, it is worth highlighting that “on December 2011 an import surtax of 25% was introduced for a range of products for which Zimbabwe has import-competing industries that were experiencing strong competition from imports” (103 in total). The surtax, at least as expressed in policy instruments, is to be applied on an MFN basis, and is to be applied to all countries including COMESA and SADC members.²⁷

In this context, the policy objectives were empirically validated by recent analysis conducted by the World Bank²⁸, which noted wide-tariff disparities within and between broad economic sectors, which are indicative of the intent to use tariffs to promote import-substituting activities.

The nature and complexity of the tariff regime, as well as data limitations pose challenges to benchmarking accurately tariff levels with the neighbouring countries. The presence of purely specific duties or excise duties, as

²⁶ Fernandes and Kirk, 2014. “Creating Incentives for New Dynamism in Zimbabwe’s Merchandise Exports: The Role of Trade and Industrial Policies”, p. 24

²⁷ Fernandes and Kirk, 2014. Op. Cit., p.5

²⁸ Fernandes and Kirk, 2014, Op. Cit.

well as the surtax restricts in some cases the construction of ad-valorem equivalents. Likewise, in standard international databases data for Zimbabwe is missing, possibly due to reporting anomalies, which is why Zimbabwe is not included in Table 28, below.

Within these limitations, though, the cited World Bank analysis added the surtax to calculate average tariffs. At the HS-digit level, for 2012, the authors report an MFN simple average tariff rate of 15.4% and an MFN weighted tariff mean of 16.7%. The number of product lines with tariffs above peak levels (15%) is reported at 30.4%.

In all of these three measures, Zimbabwean tariff levels (without exception) are imposing higher costs on its enterprises (Table 28, below). Zimbabwe's MFN simple average tariff is 6 % higher than the average level in Botswana, South Africa and Zambia (about 63% higher). The gap widens when considering the MFN weighted mean tariff, which at 16.4% is twice as high as the average of the three countries (8.2%).

In sum, tariff policy in Zimbabwe is significantly placing producers, exporters, and perhaps would-be exporters at a competitive disadvantage. This disadvantage can be, of course, reduced or eliminated by removing the surtax and reducing tariff levels at least to those observed in the neighbouring countries. Doing so might require, though, a policy shift where other tools are used instead of tariffs to promote industrial development.

Table 28: Import Tariffs 2012

	Botswana	S. Africa	Zambia	Average
Binding coverage, all products (%)	91.6	91.6	11.4	64.8
Share of tariff lines with international peaks, all products (%)	18.3	18.5	21.8	19.6
Share of tariff lines with specific rates, all products (%)	1.2	1.7	0.0	1.0
Tariff rate, applied, simple mean, all products (%)	7.6	7.1	9.8	8.2
Tariff rate, applied, weighted mean, all products (%)	6.4	4.2	4.1	4.9
Tariff rate, MFN, simple mean, all products (%)	7.5	7.5	13.1	9.4
Tariff rate, MFN, weighted mean, all products (%)	7.6	5.7	11.4	8.2

Source: World Bank World Development Indicators

G. Taxation

Benchmarking taxation across countries from the perspective of its costs to a private business is a challenging exercise, as the analytical effort needs to go beyond statutory rates and consider the basis of their application, allowable deductions and exemptions, among many other aspects of the prevailing tax regime in each country. One comparable indicator is the Total Tax Rate compiled by the World Bank Doing Business unit, which measures the taxes and mandatory contributions that a medium-size company flowerpot manufacturer must pay in a given year. All taxes and contributions that are government mandated applicable to the standardized business that impact its financial statements are included, after accounting for allowable deductions and exemptions, and they are expressed as percentage of commercial profit, before any tax is deducted.

By this measure, Zimbabwe's tax regime is more costly and disadvantaging local businesses in relation to its regional competitors, with Mozambique being an exception. The Zimbabwe-based medium-size business can expect to pay 35.3% of its commercial profit, which is about 5 % higher than what a similar company would pay in South Africa (30.1%), twice as much as what would be expected for a similar company in Zambia (15.1%), and about 10 % higher than in Botswana (25.4%) (Table 29 and Figure 7). In Mozambique, the total tax rate adds up to 37.5% due to the higher impact of income tax.

While the impact of labour and income taxes in the total tax rate appears to be more or less in line with the regional levels, property taxes_(which account for 8.1 % of the 9.4 % that “other taxes” contribute to the total tax rate of 35.3%) appear to have a disproportionate impact in taxation levels in the country. Taxes other than income and labour only account from 2.1 to 4.2 % of the total tax rate in the neighbouring countries.

In Zimbabwe, property taxes are contributing slightly less than one-fourth of the total taxation rate as measured by the World Bank. The rates vary per property type and location, and they are assessed against the value of the property. Stakeholders consulted indicated that such a high impact of property taxes might be stemming from property values that are outdated and do not reflect market values. This is an area that should be looked at in more depth.

However, taxation extends well beyond what the Doing Business unit considers in its indicators. The standard business case does not participate in foreign trade (no import or export) and does not handle products subject to special tax regimes, including excise, environmental, licensing, and many other forms of taxation that are better benchmarked at the industry sub-sector level and thus fall beyond the scope of this study.

Nevertheless, other recent studies have looked at these issues and some of their findings are worth citing here. The USAID-funded ZIM ACP Project assessed the cost of compliance with regulations in the livestock and poultry sectors.²⁹In the case of beef, their results show that various levies (including an 11.625% levy to be assessed on the value of all cattle sold) recently enacted by Regional District Councils (RDCs), registration of abattoirs with multiple agencies (Veterinary Public Health, Agricultural Marketing Authority, and Environmental Management Agency (EMA), meat inspection charges, and effluent disposal under EMA regulations, amount to a projected US\$112 per animal sold, which is calculated to lead to losses (when fixed costs are included) of between US\$7 - US\$17 per head.

In this particular case, the total projected cost of all government mandated payments amount to 16% of total costs, and therefore are high on an absolute level as well as on a comparative regional basis. According to the benchmarks presented in the report, livestock buyer fees in Zimbabwe are between 20-50 times those applicable in Botswana, the regulatory costs in Zambia amount to only \$4.72 per head, and in South Africa marketing levies are less than US\$1 . The regulatory costs of the other subsectors are also high in relation to neighbouring countries and have a significant impact in their competitiveness.

A particular set of regulations that were deemed very onerous by most (if not all) private sector stakeholders consulted were those stemming from the Ministry of Environment, Water and Climate and the EMA Act. “The latter provides for the sustainable management of natural resources and protection of the environment, the prevention of pollution and environment degradation and the establishment of the EMA among others. The main subsidiary regulations issued in terms of the Act are Environment Management (Effluent and Solid Waste Disposal) Regulations of 2007, Environmental Impact Assessment and Ecosystems Protection Regulations, Air Pollution Control Regulations and Environmental Management (Hazardous Substances, Pesticides, and other Toxic Substances) Regulations.”³⁰

Stakeholders across industry sectors identified several problems with these regulations. First, they cited that the environmental standards were set at a very high level for a country of Zimbabwe’s level of development. Secondly, there was no reasonable period given to comply with them, with the main interest being the collection of unreasonably high fines as opposed to providing guidance and incentives to comply with the regulations. A few

²⁹ For further details please see Chamboko, Tafireyi and Erasmos, Jaco. 2013. “ Analysis of Cost Compliance with Regulations in the Livestock and Poultry Sectors”, Zimbabwe Agricultural Competitiveness Program, USAID

³⁰Chamboko, Tafireyi and Erasmos, Jaco. 2013, Op. cit., p.34

stakeholders also mentioned lack of transparency and information availability about the regulations and how to comply with them.

Consistent with these views, the study conducted by the ZIM ACP project indicated that the majority of livestock and producers are not complying with the regulations because of lack of awareness and knowledge about them. Additionally, while their analysis showed that compliance with the regulations (specifically, the effluent and solid waste disposal regulations) meant a significant, though variable impact in profitability for all subsectors, but most dramatic for small scale farmers in poultry production, with potential to reduce the profitability of egg production by 42% per tray.

Another instance in which EMA regulations appear to be onerous, and are deterring foreign and domestic investment, is the 5% up-front cost for an environmental compliance certificate that is assessed on the value of any green field investment project. This results in a prohibitive cost, particularly for large investments, for a service that according to interviewed stakeholders, can cost only US\$50,000 in South Africa.

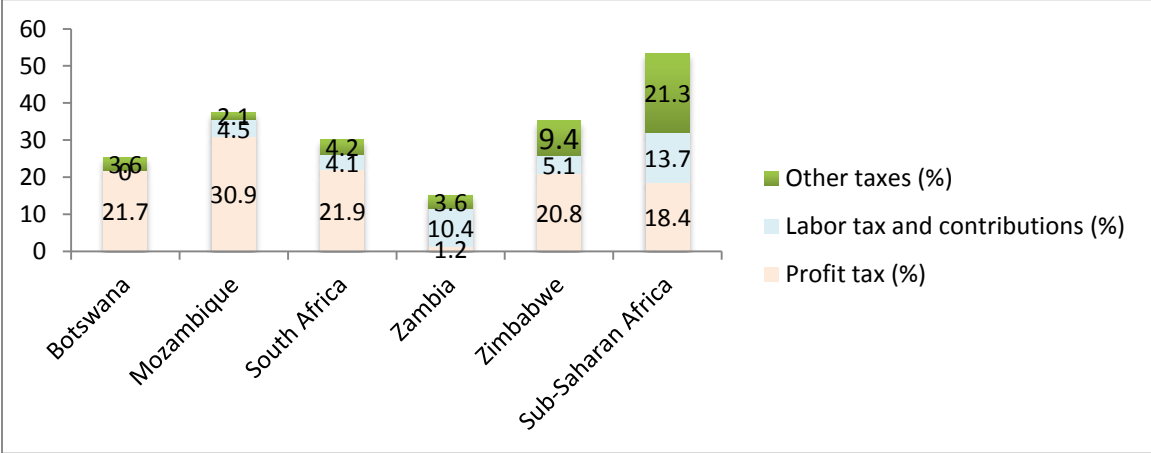
The multiplicity of fees, licenses, excise taxes, regulatory charges, permits, and other levies, such as the ones described above, and that have such large impacts on the profitability of enterprises, constitutes evidence pointing to the need of reforming existing regulations and introducing the principles of regulatory quality across government agencies. The main element of such quality is to consult those affected and assess the impact before enacting new regulation.

Table 29: Total Tax Rate, % of Profit

	Botswana	Mozambique	South Africa	Zambia	Zimbabwe	Sub-Saharan Africa
Profit tax (%)	21.7	30.9	21.9	1.2	20.8	18.4
Labor tax and contributions (%)	0	4.5	4.1	10.4	5.1	13.7
Other taxes (%)	3.6	2.1	4.2	3.6	9.4	21.3
Total tax rate (% profit)	25.4	37.5	30.1	15.1	35.3	53.3

Source: World Bank Doing Business, 2014. Assumes net taxes accruing to a medium-sized LLC manufacturing ceramic flowerpots.

Figure 7: Total Tax Rate, % of Profit



Source: World Bank Doing Business, 2014. Assumes taxes accruing to a medium-sized LLC in the manufacturing sector.

H. Information Technology (IT)

Affordable information technology (IT) costs are critical in enabling IT-based services, such as Business Processes Outsourcing (BPO), which have been identified as having good potential in Zimbabwe. IT also plays across all the sectors of the economy as an element with potential to enhance productivity and transform existing business models into more efficient and effective ones.

Zimbabwe has three mobile network service providers, namely Econet, NetOne and Telecel. There is one fixed network operator, TelOne, which is owned by the government of Zimbabwe. There are several internet access providers, namely Aptics, Powertel, Tel One (ADSL), Liquid Telecom (Econet controlled), Telco and Africom.

Econet has the largest infrastructure, operates as the dominant firm in the sector controlling seventy percent of the mobile market share. Net One and Telecel share the thirty percent equally. Regulation of the sector is divided between the Postal and Telecommunications Regulatory Authority of Zimbabwe (POTRAZ), under the Minister of Transport and Communications; and the Broadcasting Authority of Zimbabwe (BAZ) and the Media and Information Commission (MIC), which report to the Minister of Media, Information and Publicity. Each operator has its own network and is responsible for national and international traffic for their network resulting in a fragmented wholesale market. Tel One is licensed to operate the international gateway services and Econet has its own. The smaller operators use the Tel One gateway for international services.

Given the different pricing plans, discounts, and pricing structures employed by the multiple IT service providers in the different countries, the best way to assess the costs of IT services and compare them to Zimbabwe's regional competitors is to use the prices per month published by the International Telecommunications Union (ITU) which assume a standard level of usage in the fixed-telephony, mobile-cellular (including SMS), and fixed-broadband (see Table 30 for details of the assumptions).

On the other hand, mobile cellular telephone subscriptions have increased dramatically in Zimbabwe from 5.1 per 100 people to 91.9 over the same period. The mobile cellular usage basket was priced in Zimbabwe at US\$20.6 per month. At this level, the mobile telephony looks expensive by regional standards, with the exception of South Africa where the same basket was priced at US\$32.6 in 2012. By this measure, Mozambique, Botswana and Zambia have more affordable pricing for mobile, ranging from only US\$13.0 per month in the former two, to US\$14.5 in the latter. It is worth noting that by this measure, the Sub-Saharan average of US\$14.6 is nearly 30% cheaper than in Zimbabwe.

The fixed broadband usage basket was priced at US\$30 per month, which is just slightly higher than the US\$28.1 priced in South Africa, but substantially lower than the other regional benchmarks, including the Sub-Saharan average of US\$46.6. However, subscriptions per 100 people reached only 0.5 in 2012, a level that is low by absolute standards but appears in line with regional benchmarks.

The picture that emerges is that there is a need to increase access through infrastructure development in certain segments (broad-band, fixed-telephony), and prices are relatively higher in mobile. The relatively high prices of mobile services and the dominant position of ECONET suggest that there is no effective competition in the sector. In the opinion of private sector stakeholders consulted, the infrastructure owned by ECONET cannot be matched by competitors as such they cannot provide the same level of service. The regulator should investigate and monitor any abuse of market power.

Further, Zimbabwe could introduce an interconnection policy along the lines of what is being considered in South Africa. Vodacom and MTN are the dominant operators and to encourage competition and facilitate interconnectivity between networks the regulator is in process of regulating the termination call rates after concerns were raised by the public and government that the charges were too high and were benefiting the dominant players at the expense of public interests. Termination rates are fees that operators charge each other to

carry calls between their networks. The intended effect of the regulations is to increase competition between operators and encourage more investment in infrastructure and lower retail rates to customers.

The regulators should also consider the adoption of a policy conducive to infrastructure sharing in the construction of towers. The market in Zimbabwe is relatively small, e.g. when compared with South Africa; and the sharing of infrastructure could reduce the total costs to the economy and subscribers. The policy should eliminate duplication of infrastructure and help to direct resources to building a more efficient service and to serve uncovered areas.

Beyond the market dominance in mobile, Tel-One has a monopoly in fixed-telephony, and according to the World Bank, its financial situation undermines its ability to either expand lines or create a national backbone³¹. The government should consider the introduction of direct competition in this segment by eliminating impediments to new entry by domestic and foreign firms. This restriction includes the Postal and Telecommunications Act requirement that the controlling interest is to be held by Zimbabwean citizens ordinarily resident in Zimbabwe, and those of the Indigenisation and Economic Empowerment (IEE) Act of 2008.

Finally, the regulatory framework could be improved through greater autonomy to the main regulator. The World Bank and WTO noticed that overlapping regulatory authorities could be stifling performance in the sector. “Although the regulatory institutions (POTRAZ and BAZ) are meant to be independent, the Government has powers to intervene in a range of matters, including connection fees, tariffs and connectivity targets for licensees. There is an overlap and duplication of functions between the agencies regulating the sector, and according to the WTO Reviews, the fragmented nature of their arrangements impedes efficient development and harmonization of efforts.”³²

Table 30: Costs of fixed-telephony, mobile, and fixed-broadband (US\$ per month), 2012

	Zimbabwe	South Africa	Botswana	Zambia	Mozambique	Sub Saharan Africa
Fixed telephone basket (\$ per month)	9.8	28.3	17.9	7.4	12.9	10.5
Mobile cellular basket (\$ per month)	20.6	32.6	13.0	16.5	13.0	14.6
Fixed broadband basket (\$ per month)	30.0	28.1	57.3	82.3	58.5	46.6

Source: ITU World Bank (2014).

Fixed Broadband sub-basket refers to the price of the monthly subscription to an entry level fixed broadband plan, based on a monthly usage of a minimum of 1 GB. Fixed-telephone sub-basket refers to the monthly price charged for subscribing to the Public Switched Telephone Network (PSTN), plus the cost of 30 local calls (15 peak and 15-off peak 3-minute calls). Mobile cellular sub-basket refers to the price of a standard basket of mobile usage for 30 out-going calls per month (on-net, off-net, to a fixed line and for peak and off-peak times) in predetermined ratios, plus 100 SMS messages.

³¹ Matto and Waris, 2014, p. 15

³² Ibid, p.17

Table 31: Access fixed-telephony, mobile, and fixed-broadband 2005 and 2012

Subscriptions Per 100 people	Zimbabwe		South Africa		Botswana		Zambia		Mozambique		Sub-Saharan Africa	
	2005	2012	2005	2012	2005	2012	2005	2012	2005	2012	2005	2012
Fixed-telephone	2.6	2.2	9.8	7.7	7.3	8	0.8	0.6	0.3	0.3	1.5	1.2
Mobile Cellular	5.1	91.9	70.4	130.6	30.1	153.8	8.3	74.8	7.2	36.2	12	59.3
Fixed broadband	0.1	0.5	0.3	2.1	0.1	0.9	0	0.1	0	0.1	0	0.2

Source: ITU, World Bank (2014).

Table 32: SMS Services

	Zimbabwe	South Africa	Botswana	Zambia	Mozambique
SMS on Net	9	7	3	5	6
SMS originating	9	7	3	5	6
SMS terminating	9	7	3	5	6
SMS originating international	22	15	6	9	17

Source :

Table 33: Voice Services (Charges in US Cents)

	Zimbabwe	South Africa	Botswana	Zambia	Mozambique
	Econet	MTN	Orange	Airtel	Vodacom
Intra calls on net calls	23	24	15	20	13
Interconnected calls off net	25	26	19	35	13
Terminating calls international	40	51	39	56	42

Source: Interviews with Potraz management and staff

IV. CONCLUSIONS AND RECOMMENDATIONS

There is plenty of evidence ranging from its trade performance, to international organizations calculations of the real exchange rate, to the testimony of business owners and executives that report their inability to compete domestically and internationally, that Zimbabwe has developed a competitiveness gap. In the current context where the confidence of economic agents would preclude the re-introduction of a national currency, the economy needs to adjust to the realities of dollarization and the need for an “internal devaluation” that supposes a downward adjustment in the costs businesses face in their production processes.

With the exception of water and certain IT segments (and even then, some issues are discussed in the relevant sections) the other input factors examined have sizeable gaps in relation to regional competitors. The main factors of production, capital (finance) and labour will impact all the other cost factors in the proportion that each activity uses each factor, but the others examined here are critical as well for a competitive business and economic performance.

Amid the restrictions imposed by dollarization (specifically, the inability to regain competitiveness through a currency devaluation), the Zimbabwean economy cannot afford the restrictions that are in place in its labour, foreign investment and international trade policies that are increasing the cost of doing business. While there are large investment needs in rail, power, information communication technology (ICT), and road infrastructure to

close those cost gaps, a more open, liberalized and unrestricted economy, coupled with a more customer-centric government that improves the quality of its regulation can go a long way in the path to achieve the needed cost reductions to close the competitiveness gap. Indeed, as detailed throughout this report, a significant part of the high costs are policy-inflicted.

This internal devaluation process requires coordinated actions across different government ministries and agencies in Zimbabwe. And for reform processes to work, they need buy-in and mandates at high levels of government. This is recognized in the recommendation to establish a Better Business Regulation Commission, as detailed in numeral 5, below. However, in as far as they relate to cost structures and industry competitiveness, this becomes the central business for the MIC to flag the impacts of these costs to other government structures. In many countries, the role of advocating for a business-friendly enabling environment is also reinforced by investment promotion agencies that become the “guardians of the business environment”.

Within this context, specific actions and policy options that MIC could advocate for reducing costs to private enterprises are detailed below, with the possible implementer or level of government identified in parenthesis.

1) Reforms to the labour code and wage- setting practices

The study highlighted that wage increases need to be aligned with productivity for the economy to remain competitive (particularly for dollarized economies), and the current labour code and practices create expectations at the industry level that are then reinforced by practice elements. Large increases observed in the minimum wages during the last five years, and particularly at the government level, point to the need to review those mechanisms. Redundancy dismissals are lengthy, and severance payments, although not mandated expressly in law, result in amounts three times as costly as the average of the neighbouring countries. Options for improvement include:

- **Replace collective bargaining from the NEC to the company level.** Such a change will take the particular circumstances of the company (as opposed to that of a broad industry sector) into consideration and the salary increases arrived at this way are bound to be realistic, sustainable and more in line with productivity. A regional example of such a system is prevalent in Zambia (Ministry of Public Service, Labor and Social Welfare, Office of the President and Cabinet: OPC). See Annex 8
- **Modify legislation to explicitly regulate redundancy benefits in line with or below regional levels.** This will reduce costs to the employer and position the business for improved profitability and sustainability, which in turn will allow increased employment. A time frame for prompt resolution should also be legislated. (Ministry of Public Service, Labour and Social Welfare, OPC)
- **Introduce a rapid resolution scheme to allow companies to retrench at a reasonable cost.** Changing accumulated practices may take a long time, especially when the capacity of judges and arbiters needs to be built. Allowing companies to reduce their unutilized labour so that they can regain competitiveness is urgent, as described in the Labour section of this report. (Ministry of Public Service, Labor and Social Welfare, OPC)
- **Revision of wage-setting mechanisms of central and local government, and state owned enterprises.** An approach that incorporates ability to pay, productivity and the competitiveness of the economy should be adopted. The government’s ability to pay should be derived from the government being able to achieve best practice ratios in respect of total employment costs to GDP, expenditure and revenue as detailed under Table 7 to Table 9. As the largest formal employer, government wage levels have high influence in the private sector as well as the overall fiscal balance. (Ministry of Finance; Ministry of Public Service, Labor and Social Welfare, OPC)

2) Tariffs Reduction, Streamlining of Permits, and Trade Facilitation

- **Simplify the tariff structure, rationalize and eliminate the import surtax and reduce tariff levels at least to regional levels.** High tariff rates and a complex tariff structure are increasing the costs of sourcing inputs (twice the levels observed in the region) and creating opportunities for corruption at the border. The above may require a shift in policy that does not regard tariffs (and export taxes and other restrictions in certain industries for that matter) as a policy tool for encouraging domestic production and diversification, and the recognition that world trade is increasingly composed of intermediate products, as well as intra-firm trade, pointing to an increased segmentation of production across borders. While value chain integration is indeed desirable, the competitiveness of downstream production cannot be forced and it can actually harm the competitiveness of those value chain segments that can compete. There are other less distortive policies and incentives that can work towards this aim. High-border barriers will only result in high local production costs. (MIC, Ministry of Finance, OPC)
- **Review all import and export licenses and permits with a view towards their rationalization and elimination where prudent, and for those remaining; facilitate private sector compliance by coordinating within departments in the same Ministry, and across ministries.** Multiple import permits and the cumbersome process of obtaining them are delaying trade unnecessarily. Likewise, export permits are complicating sales abroad and preventing companies from reaching economies of scale that would reduce their per unit costs. Where necessary, a strict time frame for their issuance or decline should be legislated. The Government could adopt a policy that if no response is obtained from the government within a reasonable time frame after a correctly filed application, the permit can be considered approved. In 2008, half of the then 30 Organisation for Economic Cooperation and Development (OECD) member countries used the “silence is consent” rule, which implies that licences are issued automatically if the competent licensing office has not reacted by the end of the statutory response period. This principle can be applicable to other regulations that create a lot of red tape for businesses as well. (Ministry of Finance, OPC, MIC)
- **Deepen and expand risk-based inspections, including introduction of a trusted trader program:** Logistics professionals report too many agencies (typically, 10) are dealt with at the border and a very high percentage of their shipments are subject to multiple inspections (42%). Reportedly, Zimbabwe Revenue Authority (ZIMRA) is applying a risk management system but the evidence shows that this is insufficient and needs to be expanded to the other agencies responsible for border control. The introduction of a trusted trader program, whereby expedited clearance can be provided to pre-cleared businesses should also be considered. (Ministry of Finance, OPC)
- **Establish a formal dialogue between border agencies with a view towards establishing a national single window system, including a dialogue with customs users.** Improved cooperation between government agencies is a key measure and principle for faster and more efficient customs and border management procedures. Efforts in this regard should be ongoing, and mandated at high levels of government with oversight of the process. With the principle of making it easier for private agents to conduct business, government should coordinate to ensure that they never ask for the same information twice, consolidate the information needed from the private sector in a reduced number of forms (a single one would be the goal), and facilitate access and understanding of the required forms. At least 73 countries around the world have implemented this best practice that has been effective in reducing the time to trade considerably. Governments have also engaged the private sector for their input and ideas on how to make things easier. (MIC, Home Affairs, Ministry of Finance, Transport and Infrastructure, OPC)
- **Establish a Trade Information Portal:** Like the national single-window system, publishing and making available information for traders is a recognized practice for faster border procedures, which were included as consensus principles in the WTO Trade Facilitation Agreement Ministerial Conference held in Bali, Indonesia in December 2013. The need for unfragmented, “consumable” information was

recognized by stakeholders consulted, including logistics professionals. Such a portal could include information on import, export procedures, download of forms, contact details for agencies, among others. (MIC, Ministry of Home Affairs, OPC)

- **Creating standards and screening mechanisms at the custom broker level:** Issues were reported with custom brokers incorrectly completing the required paperwork to clear merchandise across borders, adding to the delays in the time to trade. This could be addressed through establishing standard qualifications and screening criteria for customs brokers. Reportedly, a mechanism exists at the company level, but logistics professionals believe it is insufficient. (Ministry of Finance, ZIMRA, MIC, OPC)
 - **Rationalize roadblocks:** Excessive roadblocks and informal payment solicitations are compounding the problem of inadequate road infrastructure and adding to the costs and time to trade. In the opinion of stakeholders, their number can easily be reduced. (Ministry of Home Affairs , Transport and Infrastructure Development, OPC)
- 3) **Update property valuations to reflect market conditions:** Property taxes appear to disproportionately impact businesses. Of an estimated, comparatively high total tax rate of 35.3%, slightly less than a quarter is due to property taxes. Taxes are likely being assessed on historical rather than current market values. Updating the values to current market conditions can reduce the impact of taxation on struggling businesses.(Ministry Local Government, Ministry of Finance, OPC)
- 4) **Revision of Environmental Standards and EMA regulations:** While a comprehensive review and benchmark with other countries of the EMA standards, fines, and regulations was not possible within the scope of this study, testimonials from the private sector, as well as evidence of specific regulations that result in much higher costs of compliance and fines in Zimbabwe, point to the recommendation of conducting a thorough review, including benchmarking with regional and other developing economies. (EMA, OPC)
- 5) **Establishment of a Better Business Regulation Commission, a permanent unit to review the flow of new business regulations, and introduction of regulatory quality elements** (MIC, Office of the President and Cabinet)

The Zimbabwean economy needs a comprehensive, all of government regulatory reform to repeal excessive regulations that place a large burden on businesses. Government-wide reform processes usually include the appointment of a credible commission mandated at high levels of government, which makes an inventory of existing regulations that are creating a hostile business environment, identifies suitable reforms, and introduces elements of regulatory quality in the country to ensure that the flow of new regulation adheres to an agreed quality criteria.

Many of the tools used in this process can be of help in the Zimbabwean context. These regulatory quality tools include subjecting existing and new regulations to an impact analysis, placing the burden of proof to justify the need of existing regulations on the regulators (a key feature of the Guillotine approach to reform), and establishing a system by which a permanent unit reviews new regulation against a quality criteria before it is enacted. The type of regulations subject to reform has varied in the different countries where they have been used: it can be broad (to include all regulations that affect businesses) or it can be narrow (for example, restricted to business licenses). Likewise, the standards and methods of the impact analysis as well as the quality criteria upon which to review regulation are varied. Nevertheless, they typically involve a combination of the principles set forth by the OECD, included in Annex 1. Importantly, these include the requirement for public consultation and assessment of costs and benefits before enacting regulation. Annex 4 includes an overview of regulatory reform tools and approaches.

These regulatory quality tools are generally not mutually exclusive, and they are more effective if their application is conceived in a framework with a medium- and long-term perspective, and integrated with broader regulatory reform efforts, such as the establishment of a Better Business Regulation Commission.

- 6) **Optimize power production through increased private sector participation.** The effective tariff to prevent power load shedding for Zimbabwean businesses is 14.5 US cents per kWh, compared with an average of 8.3 US cents among regional competitors. Demand exceeds available supply and 60% of power is generated from hydro powers sources at a competitive cost, but thermal power generation is inefficient. Increased private sector participation in thermal power operations could help correct this. Separating Kariba and using its advantages strategically for expansions into increased hydropower generation and budget support can also be considered (Ministry of Energy and Power Development, Ministry of Finance, MIC, Office of the President and Cabinet)
- 7) **Credit Information System Development:** Zimbabwe’s current laws are the most restrictive among its neighbors to sharing information about creditworthiness among lenders. The Bankers Association reported that there is a general agreement among banks to share their credit information, which in other countries has proven to be an obstacle to the critical free flow of credit information needed to develop the system, and that legislation is being developed. The framework should ensure that positive and negative information from all credit providers flows freely to be incorporated in the credit reports, that measures are in place to correct errors, and that the information is adequately safeguarded. The development of a robust credit information system should assist the financial entities to more accurately evaluate the creditworthiness of loan applications, reduce the operational costs of providing credit and lower intermediation costs, among other benefits. (Ministry of Finance, Reserve Bank of Zimbabwe)
- 8) **Measures to reduce risk in the economy and improve foreign direct investment (FDI) attraction**

The need to reduce riskiness in the economy was highlighted in the section discussing access to finance. All of the recommendations made up to this point will help to improve the predictability of business outcomes in the Zimbabwean economy (and thus, contribute in risk reduction). In this order of ideas, improved labour practices will help, as well as easing international trade and introducing other business friendly reforms.

Indeed, the introduction of business friendly reforms will also help improve Zimbabwe’s business image abroad as they begin to be captured by the highly influential World Bank Doing Business report and the WEF GCI. These indices have a strong self-reported component (in other words, local businesses are surveyed to compile them). As such, the following actions are also recommended:

- **Strengthen Public-Private Dialogue.** Involve the business community in the reform efforts not only for their valuable input and to facilitate ensuing implementation, but also that they are aware of the reform efforts and that they can be reflected adequately in international indices. Improving the country position in them will help reduce risk perceptions of domestic and international investors alike, and assist to attract much needed liquidity and foreign direct investment. (This can be done as part of the Better Business Regulation Commission suggested in numeral 5).
- **Credibly clarifying the rules, scope and implementation of the IEE.** The Indigenization and Economic Empowerment (IEE) Act of 2008 looks to endeavour and secure at least 51% of the shares of every public company and any other business shall be owned by indigenous Zimbabweans. Frequent amendments and more specific regulations have added to the confusion, resulting in a lack of clarity and adding risk in the economy. As noted by Pierola and Farmer (2014)³³, “the IEE program not only establishes restrictions on foreign ownership, but also actively aims at restricting ownership within the domestic economy (of non-indigenous domestic agents). Lack of clarity around financing of the program has augmented uncertainty

³³ Pierola and Newfarmer, Op. Cit., p. 56

over protection of ownership. This would reduce an important source of uncertainty and risk across the Zimbabwean economy, removing an obstacle to attracting much needed investment to reduce costs in the banking, rail, transport, and IT sectors. (Ministry of Finance, Zimbabwe Investment Centre, Ministry of Indigenization, OPC)

- 9) **Lack of scale:** capacity utilization has been compromised by the supply side, chiefly arising from lack of sufficient working capital finance and restricted performance of the agriculture sector. Government should consider putting in place a mutually beneficial contract farming policy, support the fertilizer industry and revisit the 1995 – 2020 agriculture policy. Government should consider the role of Agricultural and Rural Development Authority (ARDA) estates and the Cold Storage Commission with a view to recapitalize them on a public – private partnership (PPP) and remodel use of land to regroup labour (skill and management), capital and technology. (MIC, Ministry of Agriculture, CZI, ZCFU)
- 10) **Delay by government to pay for goods and services:** this is threatening the going concern capability of certain firms. Government should consider commissioning a study to deal with its arrear creditors and to prevent further accumulation. (Min of Finance, MIC, OPC, CZI, ZNCC, Ministry of Health of Child Care)
- 11) **Lack of change;** the Ministry of Finance should revisit the study that was carried out by the Reserve Bank of Zimbabwe and consider implementing the recommendation from the study.
- 12) **Internal Devaluation:** In the absence of the option of currency devaluation, the only available option to close the competitiveness gap is for government to adopt the internal devaluation strategy that was adopted by Latvia and other Baltic States. This will involve a systematized cost cutting measure across all the sectors of economy, incorporating a reduction in employment costs in both government, the private sector, parastatals, local authorities and other public institutions. As alluded to above a review of all cost of goods and services, taxes, direct and indirect and regulatory costs should be considered to make Zimbabwe a low cost producer of goods and services. These measures should close the un -competitiveness gap, making exports more viable, improving private sector profitability and enhancing higher volume sales. Improving private sector profitability should result in an increase in government taxes and enhance margins on commodities whose pricing is currently facing international pressure.
- 13) **Zimbabwe Economic Recovery Bill:** The operationalization of the internal devaluation process and recommendations of this study require a legal framework that will have an overarching effect on existing laws. It is observed that the Zimbabwe Agenda for Sustainable Socio Economic Transformation (Zim – Asset) lacks a legal framework to facilitate its implementation. It is recommended that a Zimbabwe Economic Recovery Bill that will encapsulate necessary legal adjustments to current laws is promulgated to give effect to the legal environment that will enable the country to close the unfolding un – competitiveness and eliminate the effect of existing laws that have become an obstacle to the recovery of the economy.
- 14) **Skills Enhancement Program:** The international isolation of Zimbabwe in the last ten years has resulted in a skills gap in both the public and private sector. A skills audit in the public sector is imminent and should help government to adapt to managing a dollarized economy. The implementation of the Results Based Management program is recognised as an attempt by government to improve the management of resources, the impact of flight of human capital in the last ten years cannot be over emphasized as the country lost some of its best minds. There is a need to evaluate the present human capabilities and skills to develop capacities that will match the demands of a changed dollarized economy.
- 15) **Economic Recovery Specialist Team:** The changes required demand a multiple of diverse skills and a dedicated team to guide the process on implementing the recommendations of the study, It is recommended that a team of specialists with requisite skills and experience is put in place to enable the operationalization of the recommendations proposed in this study.

V. CASE STUDIES

Case Study 1: Cement Manufacturing

Background

The industry comprises three manufacturers namely; Pretoria Portland Cement (PPC) Lafarge and Sino – Zim Cement. The three companies have the following capacities:

PPC	850 000 tons
Lafarge	450 000 tons
Sino – Zim	250 000 tons
Total	1 550 000 tons

PPC controls 65 % of the Zimbabwean local market. The market is highly concentrated and oligopolistic with PPC as the price setter distributing cement countrywide at one national price. The retail price is US\$ 11 -12 per bag.

According to ITC figures as reported by Zimbabwe, exports of cement have been declining from about US \$39.4 million in 2009 to US\$21.3 (an average annual decline of 14.2%). Likewise, cement's share as percentage of the country's exports has declined from 1.74% to 0.61%. Meanwhile, imports have been erratic (in value terms) from US\$2.5 million in 2009 to US\$5.5 million in 2011, reaching a level of US\$2.3 million in 2013.

The sector is currently operating at between 60 and 70 % capacity.

Challenges facing the sector

1. Power

The producers are charged a non-load shedding tariff, which is effectively 14.50 cents per KWh. The normal tariff is 9.83 cents per KWh. Loss of power through load shedding is not only affecting production but also damaging cement plants, forcing the companies in the sector to opt for the dedicated supply at a premium of 14.50 per KWh.

2. Transport Costs

Cement inputs and the finished product are bulky and require rail transportation. The inefficiencies at the National Railways of Zimbabwe at times force producers to use the expensive road option. With the reduction in the volume of traffic available within the economy, road haulers are using the NRZ charges as a reference to determine their rates, resulting in the NRZ charges in certain routes being matched by road operators. PPC has a peculiarity in that it moves its traffic on the NRZ and Beit Bridge Railways (BBR) managed routes. The Bulawayo to Colleen Bawn route where the clinker is produced is managed by (BBR). The rest of the routes are under the NRZ. The BBR rate is higher than the NRZ rate per ton kilometer. The NRZ charges 7.78 US Cents per ton kilometer for moving coal from Hwange to Bulawayo. The wagons from Hwange are passed over to the BBR, which charges a higher rate of 10.53 US cents per ton kilometer. The NRZ and BBR are monopolies and therefore are able to charge monopolistic rates. A road transporter, Colbro is offering PPC a more competitive rate of 9.70 US cents than BBR in the same route.

3. Slag

Zimbabwe Iron and Steel Company (ZISCO) is the only source of slag in Zimbabwe, and this has been the major source of income for the partially closed ZISCO Steel. The cement producers hold the view that compared to the region it is overpriced.

4. Gypsum is produced by one player and is also considered by players to be charged a monopolistic price.

5. Rates and taxes

The producers note that these charges are a fixed cost and proportionately too high when compared with what South African producers are charged.

6. Finance

The producers have to support cement distributors by offering them credit terms. This exposes them to credit risk in the prevailing environment that is characterized by liquidity constraints. The average interest cost of 15 - 18 % is higher than the 8 % that South African producers pay.

7. Capacity Utilization

The producers export some of their cement to augment suppressed local demand. Cement is exported at a small return on marginal costs.

8. Spares

The Zimbabwe tariffs on spares are higher than those charged in South Africa.

9. Threats of Imports

Imports from South Africa are coming into Zimbabwe in the Matebeleland region eating into the traditional PPC market. It is cheaper for cement users near the border towns to import cement than to buy from PPC. This threat has been made really by the weakening of the Rand against the US Dollar. Table 34 demonstrates the impact of the Rand devaluation at various exchange rates. Zimbabwe cannot adjust its prices to match the Rand devaluation, making cement produced in Zimbabwe more expensive.

The retail price of cement at Musina, South Africa is ZAR 65 – 70 per bag.
Landed across the border in Beit Bridge the price is ZAR95.84.

Table 34: Landed cost of ZAR 95.84 per bag conversion to US\$

Exchange Rate	Converted Cost in US\$
7	13.69
8.50	11.28
9.0	10.64
9.50	10.01
10.00	9.58
10.50	9.12
11.00	8.71
13.50	7.01

The factory price in Zimbabwe for PPC is US\$ 9.60, and retails at US\$11.00. At the current exchange rate of ZAR 10.50 South African cement lands in Zimbabwe at a comparable price of US\$9.12, indicating a competitiveness gap in the Zimbabwean market of 17%. While it is not known how much more could South African producers reduce their prices to compete in the Zimbabwean market, Zimbabwean producers are indeed facing intense competition that could be increased should the rand devalue further.

Should the Zimbabwean environment be improved with policies that reduce the cost of doing business, Zimbabwean producers would be able to compete and possibly regain some of their lost export levels. It should be noted, though, that the analysis is static- as information about demand changes in the region for cement is not available and has an influence in all the variables discussed.

Table 35: Cost Comparison for Cement Production

Cost Type	South Africa (US\$)	Cost per ton (US\$)	Zambia (US\$)	Cost per ton (US\$)	Zimbabwe (US\$)	Cost per ton (US\$)
Cement milled (tons)	1 093 923		264 000		658 905	
Coal	9 734 155	9.00	4 896 508	18.55	4 452 894	6.76
Diesel	1 349 346	1.25			1 876 649	2.85
Gypsum	442 426	1.33	504 140	1.91	688 420	1.04
Limestone			2 039 875	7.73	1 599 078	2.43
Contract labor	400 750	0.37			3 706 549	5.63
Repairs ordinary	3 115 946	2.88	1 231 718	4.67	4 509 405	6.84
Repairs special	3 453 554	3.19			83 253	0.13
Packaging	4 133 352	3.19	2 240 621	8.49	3 561 467	5.41
Power	7 688 492	7.11	2 240 621	5.54	1 461 809	14.5
Refractories	1 529 858	1.41			626 787	0.95
Salaries	8 024 761	7.42	3 969 000	15.03	8 971 483	13.62
Other overheads	3 943 185	3.65	1 971 152	7.47	2 248 443	3.41

Source: Cement Producers

Table 36: Unit Cost Comparison of Final Product

Cost Type	South Africa	Zambia	Zimbabwe
Total Cost per ton (\$)	46.70	72.14	82.67
Coal	8.94	18.55	7.57
Power	7.03	5.54	14.69
Gypsum	1.32	1.91	1.06
Maintenance	6.01	4.67	7.06
Packing	3.78	8.49	5.48

Source: Cement Producers

Potential Measures to Close the Gap with South Africa

Power – reduce tariff from 14.50 US cents to 9.83 US cents. Cost per ton reduction of finished product would be US \$ 2.44

Maintenance – Duty paid on imported spares is much higher than that paid by South African producers. The highest level of duty in South Africa is 15 percent and there is no duty on parts considered critical. Cement plant

spares are specialized and are mostly produced in Europe. The cost of transporting spares from overseas is on average 10 % in addition to the actual cost of the spares. Duties levied on spares from Europe attract tariffs as high as 40 % as shown in the sample below:

Duty on packaging is also high at 30 %.

Table 37: Zimbabwe Import Tariffs – Sample Spare Parts

Spare Part	Country of Origin	Duties	Transport and clearance
Filters	U.K.	40 %	2.64 %
SAE process oil	Germany	25 %	5.18 %
Seal blade	Germany	15 %	8.43 %
Circuit breaker	Germany	10 %	2.39 %
Support wheel assembly	Germany	5 %	20.67 %
Refractory bricks	China	5 %	8.06 %
Electric motors	Germany	0 %	7.41 %

In the sample the maintenance cost in Zimbabwe at US\$ 7.06 is the highest, followed by South Africa at US\$ 6.01. The recommendation to review tariffs is validated as tariffs of 40 % as above arose from the Zimbabwe Dollar era and have not been re – aligned to the use of hard currency as the trade currency.

The level of tariffs required to match Zambia and South Africa could not be ascertained within the scope of this study.

Capacity utilization

PPC is currently operating at 70 % capacity. Demand in the country is currently depressed because of the prevailing liquidity challenges. Enhancing capacity utilization can only be derived from exports. The region is facing excess capacity. Namibia and South Africa in particular have excess capacity compared to their local demand. Mozambique and Zambia have demand that is not matched with local supply. Movement of cement is determined by use of rational economic zone evaluation. This measures the distance between the factory and the market. The further the market is, the transport costs impact on the marginal cost profit, which beyond a certain point becomes uneconomic. The size of rational economic zone depends on an efficient rail system. The NRZ is currently struggling to survive and is not able to offer attractive rates and an efficient service. The Mozambique market of Tete has high cement demand and PPC has been servicing it and could do more if the NRZ service was improved. The increase in utilization based on exports does not reduce the price of cement production as pricing is based on marginal costs with fixed costs being recovered from local sales.

An increase in utilization of 10 % based on local demand would reduce fixed costs by US\$ 2.98

Finance Costs

PPC is currently benefiting from PPC South Africa and is borrowing at a competitive interest rate through a group facility. The impact of the interest rate of 15 - 18 % against South Africa’s 8.5 % could not be evaluated.

Table 38: Gap Reduction

Country	South Africa	Zambia	Zimbabwe
Cost Per Ton	US\$ 46.70	US\$ 72.14	US\$ 82.67
Power (32 % reduction)			4.70

Capacity increase (10 %)			2.98
Cost after reduction			74.99

Source: Author's compilation

Case study implications

- Zimbabwe is a high cost producing country, rendering its products expensive both in the local and foreign markets. The supply side of the economy is inefficient as evidenced by high utility bills, inefficient service providers as exemplified by the NRZ and ZESA operations. Regulators like the Competition Commission are ineffective as there is evidence that the market is prone to abuse of market power by dominant firms and those companies in a monopoly situation such as suppliers of gypsum, slag and the BBR. It is apparent that competition in the cement industry is suppressed as the three players charge the same price around the country.
- The use of a dedicated tariff by ZESA emerges as a concern, as it is not motivating ZESA to become efficient. ZESA is charging an emergency tariff as a normal tariff, effectively allowing them to perpetuate their inefficiencies.
- The tariffs on spares manufactured outside SADC should be reviewed and at least re – aligned to those that are charged in the region. The tariff on packaging should also be reviewed downwards to a more competitive level.
- The costs of doing business in Zimbabwe are general high as observed in this study and many others, the overall reduction of costs of doing business will support the repositioning of manufacturers to be able to compete. Many of the higher costs included in the main report, such as property taxes, could not be assessed for impact if they were reduced with the cost breakdown that we were able to obtain from the cement producers.
- The overall reduction in costs of doing business will enable the cement producers to reduce local prices to a more affordable level and increase the rational economic zone for cement exports. This will enable producers to increase capacity utilization.

Case Study 2: Fertilizer Manufacturing

Introduction and Background

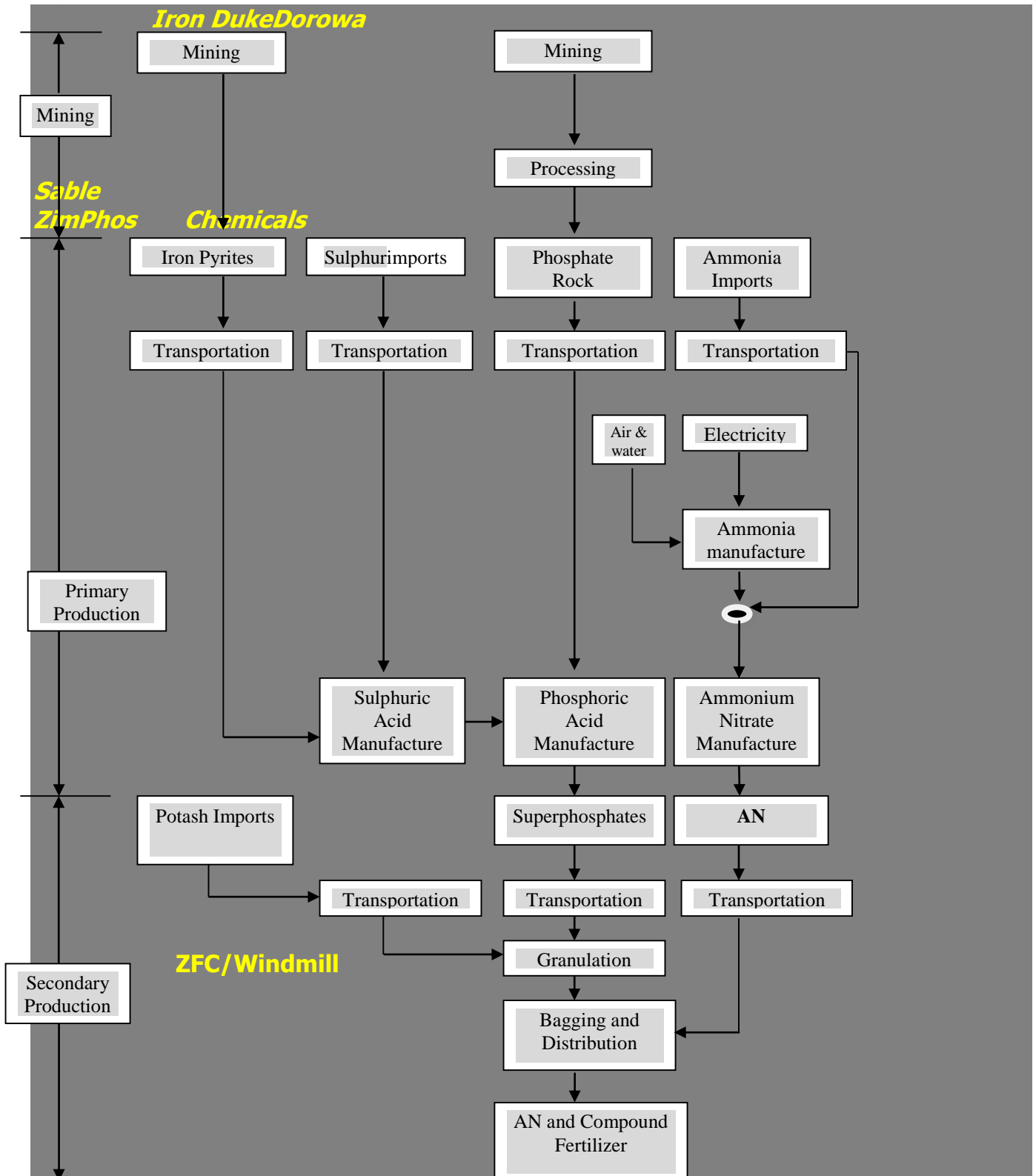
Fertilizer is produced in Zimbabwe at two levels of processing, the primary and secondary levels. The primary stage involves the production of raw material fertilizer inputs, namely, ammonium nitrate and the phosphates that are produced at Sable Chemicals Limited and Zimbabwe Phosphorous Limited respectively. Sable Chemicals is situated in Kwekwe, and Zimbabwe Phosphates (ZimPhos) is in Harare but rock is mined and concentrated at Dorowa. Sable Chemicals is 220 kilometers from Harare while Dorowa is 300 kilometers away. The phosphates and ammonium nitrate together with potash are the raw materials required in the manufacture of fertilizer. Potash is imported through Beira.

The two companies, Zimbabwe Fertilizer Company Limited (ZFC) and Windmill Limited, both based in Harare are the secondary producers and get their material inputs from the above sources. The two companies have the following granulation capacities; Zimbabwe Fertilizer Company – 200 000 tons and Windmill – 160 000 tons, their blending capacities are 100 000 tons each.

The companies were established prior to independence and were developed as part of national strategy to support agriculture.

The water electrolysis process used at Sable Chemicals is an energy intensive technology used for generating hydrogen and oxygen from water. The hydrogen produced in the water electrolysis process is destined for use in the production of ammonia at the ammonia synthesis plant where a combination of hydrogen and nitrogen take place. Nitrogen is obtained from the air separation plant where liquifaction and distillation of air takes place. The country could afford to use electricity for this hydrogen production in the 1960 to 70s era because there was excess and affordable power from Kariba Hydro Power Station. With the increase in the demand for power the water electrolysis process has now become too expensive for Sable Chemicals. The cost of electricity accounts for up to 86 % of the cost of producing ammonia at Sable Chemicals as a result of both the nature of the process and escalation in the price of electricity between the 1980s and to date. Sable Chemicals has an installed capacity to produce 240,000 metric tons of ammonium nitrate fertilizer. However, currently the company is producing 60 to 70 000 metric tons per year. This is short of the national requirement of 150 000 tons per year. The shortfall is imported.

Figure 8: Zimbabwe Fertilizer Industry Production Flow Chart



Source: IDC Industrial research series

Fertilizer manufacturing is a high cost and low margin business. The secondary producers produce compound fertilizer grade products (NPKs) that involve the granulation processes. The granulation process is highly

mechanized with raw materials constituting over 75 % of the manufacturing cost. Both the raw materials and finished products are bulky and require an efficient and low cost mode of transportation. Therefore rail is the most appropriate method of transportation.

The two producers, ZFC and Windmill, are currently competing with fertilizer importers. The main importer is Omnia (Private) Limited, a wholesale and retail division of the South African based company, Nutrichem and Prophet (Private) Limited who import most of their fertilizers from South Africa.

Market Analysis

Table 39: Market Analysis – Local versus Imported Fertilizer Prior to Dollarization

Year	Ammonium Nitrate	NPK Compounds	Total ZFC & Windmill	Imports	Total including Imports	Percentage of Imports (%)
1995	174 994	239 994	414 988	50 000	464 000	11
1996	212 687	256 728	469 415	91 000	560 000	16
1997	190 383	230 121	420 504	45 000	465 000	10
1998	196 286	227 535	423 821	40 000	464 000	9
1999	203 173	257 148	460 821	30 000	490 000	6
2000	168 825	176 864	345 689	20 000	355 000	6

Source: ZFC

The ratio of imported fertilizer to the total used was modest with the highest ratio of 16 % in 1996. In that year there was a one month shutdown of the plant at Sable Chemicals for maintenance.

Table 40: Post Dollarization

Year	AN	NPK	Total ZFC & Windmill	Imports	Total including imports	Percentage of imports (%)
2009	54 000	100 000	154 000	70 000	224 000	31
2010	80 615	145 393	240 167	73 125	299 133	24
2011	89 748	139 163	219 538	68 550	297 461	23
2012	95 682	113 320	156 252	88 455	297 457	30
2013	100 000	125 792	201 833	124 787	350 579	35

Source: ZFC

The ratio of imported fertilizer used has markedly increased from the average of 10 % to over 30 % since dollarization and seems to be on the rise.

Fertilizer consumption

Until 1999, the large-scale commercial farming subsector accounted for most of the fertilizer consumption. The N:P₂O₅:K₂O ratio was 1.0: 0.55:0.43 in the commercial farming subsector and 1.0:0.51:0.18 in the communal subsector (Table 41).

The application rates in the large-scale commercial farming subsector were comparable with those in developed countries. The application rates in the smallholder subsector were and have remained much lower (Table 42).

The disparity in fertilizer use between the different farming sectors indicates a large potential for increased fertilizer use in the smallholder subsector.

Table 41: Consumption of fertilizer products by farming sector

Nutrient	Large-scale commercial		Smallholders		Total		Large-scale commercial		Smallholders	
	('000 tons)	(%)	('000 tons)	(%)	('000 tons)	(%)	(%)	(%)	(%)	(%)
N	70.8	51	19.9	65	90.7	53	78		22	
P ₂ O ₅	38.7	28	7.0	23	45.7	27	85		15	
K ₂ O	30.5	22	3.8	12	34.3	20	89		11	
Total	140.0	100	30.7	100	170.7	100	82		18	

Source: ACFD, 1996.

Table 42: The market shares of the farming subsectors

Subsector	Percent of fertilizer market (product)	No. of farmers	Average fertilizer order	Average fertilizer application
	(%)	('000)	(tons product)	(kg NPK/ha)
Large-scale commercial	81	2.5	165	290
Communal lands	17	850.0	0.1	15
Small-scale commercial	2	12.0	0.8	33

Source: FAO

Statistics on fertilizer use by farming subsector for the period post the land reform program could be misleading owing to a number of factors, for example:

- As a result of the agrarian and land reform program, large-scale commercial agriculture as it was before 2000 has disappeared. There are few statistics on fertilizer use by new farmers who have moved onto the former commercial farms.
- The Government input schemes could distort the actual use by the farming sectors. Some of the fertilizers intended for the smallholder subsector find their way to medium-scale commercial farmers.
- The recovery of agriculture in respect of cash crops, namely, tobacco, cotton, soya beans, barley, sorghum and horticulture has been supported by contract farming. Contractors prefer to import their inputs including fertilizer.

1. Capacity Utilization

Table 43: Capacity Utilization (Granulation Plus Blending) Prior to Dollarization

Capacity	ZFC	Windmill	Total Capacity	Total Produced	Percentage used (%)
1995	300 000	260 000	560 000	239,994	43
1996				256,728	46
1997				230,121	41
1998				227,535	41
1999				257,148	46

2000				176.864	33
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Source: ZFC

The lowest of capacity utilization was experienced in 2008 where 70 000 tons was produced. This represented 12 % capacity utilization.

Table 44: Capacity Utilization – Post Dollarization

Capacity	ZFC	Windmill	Total Capacity	Total Produced	Percentage Used (%)
2009	300 000	260 000	560 000	100,000	18
2010				145,393	26
2011				139,163	25
2012				113,320	20
2013				125,792	22

Source: ZFC

Capacity utilization increased from the low level of 12 % to the highest 26 % in 2010. The momentum has slowed down as imports have been rising.

Table 45: Ratio of Imports to Capacity

Capacity	ZFC	Windmill	Total Capacity	Imports	Percentage of imports (%)
1995	300 000	560 000		50 000	9
1996				91 000	16
1997				45 000	8
1998				40 000	7
1999				30 000	5
2000				20 000	3

Source: ZFC

Imports averaged 9 % over the period of five years above.

Table 46: Ratio of Imports to Capacity – Post Dollarization

Capacity	ZFC	Windmill	Total Capacity	Imports	Percentage of imports
2009	300 000	560 000		70 000	12
2010				73 125	13
2011				68 550	12
2012				88 455	16
2013				124 787	23

Source: Author's calculation

Imports averaged 15 % over the last five years after dollarization and are on the rise.

Potential capacity lost to imports is on average 15 % over the past 5 years. The average for the past two years is 20 percent.

4. Finance

Reduce finance costs from 20 % to 10 % per year:

Finance is required to support production through a calendar year. The fertilizer industry has a long cash cycle and most customers would require to be offered credit facilities for at least three months. The fertilizer sales cycle in Zimbabwe has shifted over the years. Prior to 2000 the sales cycle was as follows:

Winter crop	– 40 % off take
Summer crop	- 60 % off take

Current scenario

Winter crop	- 20 % off take
Summer crop	- 80% off take

The former cycle enabled producers to produce through the year with reasonable finance costs. The collection efficiencies were also reasonable as the country had sufficient and suitable structured finance towards working capital for both fertilizer producers and farmers. The current scenario requires producers to hold stock for a longer period without sales if they have to produce continuously through the year. This requires a higher level of working capital to finance stock holding.

The seasonal nature of fertilizer demands makes it difficult for companies to generate sufficient cash flow from sales to finance operations. The companies need to obtain borrowings from banks. Because of high interest rates firms manufacturer fertilizers on demand in order to avoid overstocking and under stocking. This however, presents logistical difficulties in ensuring timely supply, more so to small holders who tend to buy fertilizer after the start of the rainy season. Firms have to hold stocks for at least three months to meet peak demand.

Challenges Facing Producers

- Low Capacity utilization
- Lack of sufficient working capital, where available, it is expensive, short term and not suitable for agricultural activities
- Low effective demand, farmers lack adequate financial resources to purchase fertilizer requirements
- Lack of procurement transparency in contract farming
- Late announcement of government agriculture support programs, results in late placement of orders.
- Delay in settlement of accounts by government
- Exorbitant regulatory charges, incorporating local authority rates and taxes, license fees, Environmental Management Agent charges and rent seeking fines.
- Unreliable rail service by the National Railways of Zimbabwe
- Delays in issuing export permits
- High cost of power
- Rigid labor laws

Cost Structure Primary Producers

Raw materials and electricity are the major cost drivers in fertilizer manufacturing. Electricity is a major cost at primary stage driving costs at Dorowa and Sable Chemicals. The high costs of raw materials at secondary level are a result of the costs at primary stage that are large consumers of electricity. The cost of imported potash is impacted by transportation costs from Beira. The inconsistencies of the National Railways of Zimbabwe (NRZ) affect timely availability of materials and transport cost in case imports are moved by road.

Table 47: Cost Structure – Sable Chemicals Ammonium Nitrate

Detail	Amount	%
Imported ammonia	1 067 056	25%
Other variable costs	121 171	3%
Bagging costs	131 260	3%
Depreciation	245 000	6%
Repairs and Maintenance	175 250	4%
Chemicals & coal	107 000	2%
Insurance	45 000	1%
Power	1 235 809	28%
Labor	706 735	17%
Administration costs	300 738	7%
Admin labor	85 843	2%
Interests	73 179	2%
Transport	32 525	1%
Diesel	16 102	0%
Water	3 682	0%
Communication	3 438	0%
Property taxes	6 123	0%
Total	4 355 911	100%

Source: Sables Chemicals

Production output: 8 172 tons
 Cost per ton: US\$533
 Established capacity: 240 000 tons

Table 48: Capacity Utilization, Ammonium Nitrate: 2009 - 2013

Year	Tones	Utilization
2009	46 336	19%
2010	89 626	37%
2011	81 057	34%
2012	58 933	25%
2013	63 517	26%

Source: Sables Chemicals

Sensitivity Analysis - Ammonium Nitrate

Increase capacity utilization to 65 percent – This is the level required to supply local fertilizer requirements.
 Impact - Reduction in fixed costs

Table 49: Sensitivity Analysis - Ammonium Nitrate

Detail	Amount	Cost per ton at 40 percent capacity	Capacity Increase to 65 percent	Interest Reduction to 10 %	Reduced Cost per Ton
Imported ammonia	1 067 056	130			130
Other variable costs	121 171	15			15
Bagging costs	131 260	16			16
Depreciation	245 000	30	11		19
Repairs and Maintenance	175 250	21			21
Chemicals & coal	107 000	13			13
Insurance	45 000	7	4		3
Power	1 235 809	151			151
Labor	706 735	86	32		54
Administration costs	300 738	37	14		23
Admin labor	85 843	10	3		7
Interests	73 179	9		4	5
Transport	32 525	4			4
Diesel	16 102	2			2
Water	3 682	0.5	0.2		0.3
Communication	3 438	0.4	0.1		0.3
Property taxes	6 123	0.7	0.2		0.5
EMA,					
Total	4 355 911	533	64.5	4	464.1

Source: Author's compilation

Enhancement of capacity has high impact and at 65 % utilization would reduce costs per ton by US\$ 64.50. The company would also need to finance the incremental working capital; currently the company has a facility that attracts interest of 18 %. An interest cost of 10 % would reduce the cost per ton by US \$ 4. The combination of the two inputs at a mark - up of 5 % would make take the price of ammonium nitrate to the level of 2010 of US\$ 490 (US\$ 487 based on above figures), making it more competitive to produce locally than to import.

Table 50: Ammonium Nitrate price history since dollarization.

Year	Price/t (US\$)
2009	470
2010	490
2011	515
2012	560
2013	560

Source: Sables Chemicals

Import parity price – US\$ 564.

Regulatory Costs Sable Chemicals

There is potential to rationalize regulatory costs that are given below. The total regulatory costs of US\$34 905 are substantial more so as secondary producers are also charged further license fees. As mentioned in the main report,

section under trade taxes, license fees are being used by these regulatory agents for revenue generation rather the regulatory function.

Environmental Management Agency (EMA)

1. License for Storage and Manufacturing of Hazardous Substances (all chemicals)
2. License for importation of hazardous substances (mainly ammonia)
3. Aerial Emissions license for North Nitric Acid Plant Stack
4. Aerial Emissions license for South Nitric Acid Plant Stack
5. Aerial Emissions license for Ammonium Nitrate Plant Stack
6. Aerial Emissions license for coal fired boilers Stack
7. Solid waste disposal license
8. Effluent disposal license
9. Hazardous waste disposal license

Total annual payment – US\$ 16 280

National Social Security Authority (NSSA)

1. Manufacturing license

Annual cost – US \$ 14 727

Medicine Control Authority of Zimbabwe (MCAZ)

1. Premise license
2. Persons license

Annual cost US \$ 360

Radiation Protection Authority Zimbabwe (RPAZ)

1. License for possession and storage of radiation generating equipment for Ammonium Nitrate Plant
2. License for possession and storage of radiation generating equipment for North Nitric Acid Plant
3. License for possession and storage of radiation generating equipment for South Nitric Acid Plant

Annual cost US \$ 3 020

Health Professions Authority (HPA)

1. Premise operating license

Annual cost US \$ 518

(ii) Total Annual Regulatory Costs

1. EMA - US\$ 16 280
2. RPAZ - US\$ 3 020.00
3. HPA - US\$ 518.00
4. MCAZ - US\$ 360.00
5. NSSA - US\$ 14 726.96

Independent inspections are required to certify compliance with NSSA requirements annually.

Cost – US\$ 2 457

1. The effective power rate: **3c/kWh**. This is a negotiated and government subsidized rate. The government is responsible for the subsidy of 6 cents per kWh.

Table 51: Capacity Utilization of Sables Chemicals

Year	Capacity (tons)	Tons Produced (tons)	Capacity Utilization (%)	AN Price per ton (US\$)
2009	240 000	46 336	19	470
2010		89 626	37	490
2011		81 057	34	515
2012		58 933	25	560
2013		63 517	26	560

Source: Sables Chemicals

The main cost driver is electricity and the current power tariff of 3 US cents is subsidized by the government which is responsible for the subsidy of 6 US cents per kWh.

Sable Chemicals has capacity to meet local demand for ammonium nitrate which at the prevailing level of agricultural activity is 150 000 tons per year. The company is constrained by lack of adequate working capital and high interest rate. The company has a bank facility that attracts interest of 18 percent.

The price of US\$ 560 is marginally lower than the import parity price of US\$ 564 per ton.

Table 52: Cost Structure Phosphate Rock

Dorowa Mine

Cost	Percent (%)	Cost per Ton at 20 % capacity	Cost Reduction at 65 % capacity	Reduced Cost per ton
Mining	30	47.25	13.07	34.18

Process Costs				
Labor	8	12.28	3.35	8.93
Electricity	16	26.32	18.00	8.32
Other	31	49.15	13.40	35.75
Transport				
- Road	4	7.15		7.15
- Rail	11	17.85		17.85
Total	100	160.00	47.82	112.18

Source : Zimphos

Table 53: Power Tariff

Energy	Rate
Standard	7 Cents
Peak	13 Cents
Off peak	4 Cents
Demand	US\$4

Source: ZERA

The effective tariff based on the above is 9.8 US cents.

Reduce power tariff from 9.83 US cents to 3 US cents per KWh. Power tariff reduction would reduce cost per ton by US \$ 18 per ton;

Reduce labor and other costs from the capital utilization level of 20% to 65 percent.

Table 54: Cost Structure – Superphosphate

	<u>TOTAL US\$</u>	<u>Wgt</u>
<u>SINGLE SUPERPHOSPHATE</u>		
Phosphate Rock	80	29%
Sulphuric Acid	105	31%
RAW MATERIAL COST	185	61%
<u>OPERATING COSTS</u>		
Labor	34	11%
Power	17	6%
Diesel		0%
Water	1	0%
Admin Labor	2	1%
Admin Costs(other)	20	6%
Communication	6	2%
Consumables	5	2%
Maintenance	25	8%
Protective clothing	3	1%
Security	8	3%
TOTAL COSTS	306	100%

Source: Zimphos

The main costs drivers are raw materials, labour, maintenance and power in this order. Phosphate rock is mined and concentrated at Dorowa Mine.

Table 55: ZimPhos is on the normal industrial tariff like other industrial consumers as follows;

Energy	Rate
Standard	7 Cents
Peak	13 Cents
Off peak	4 Cents
Demand	US\$4

Source: ZimPhos

The effective tariff based on the above is 9.8 US cents.

1. ZimPhos established Capacity

225 000 tonnes per year of phosphates, 36 000 tonnes per year of Alum Sulphate

Table 56: ZimPhos Capacity Utilisation 2009 to 2013

Year	2009	2010	2011	2012	2013
Capacity(%)	29%	56%	48%	14%	15%

Source: ZimPhos

Table 57: ZimPhos Production 2009 to 2013

Year	2009	2010	2011	2012	2013
Production(ton)	48802	94 589	80 798	23351	25 342

Source: ZimPhos

Table 58: ZimPhos Cost Reduction

Cost Element	%	Cost per Ton 20 % capacity	Capacity increase to 80%	Power from 9.83 to 3 UScents	Interest Reduction from 20 to 10%	Reduced Cost per Ton
Phosphate rock	11	80				56.0
Sulphuric acid	31	105				105.0
Total materials	61	185				161.0
Operating costs						
Labour	11	34	23.3			8.0
Power	6	17		11.2		6.0
Water	0	1				1.0
Admin labour	1	2	0.7			1.0
Admin other	6	17	11.3			6.0
Communication	2	6	2.0			4.0
Consumables	2	5				5.0
Maintenance	8	25			5	20.0
Protective clothing	1	3	1.0			2.0
Security	3	8	2.7			5.0
Interest	1	3.0			2	1.0
Total	100	306	49.0	20.2	2	220.0

Source: ZimPhos

Table 59: History of Prices of Supersphosphates – since dollarization

Year	2009	2010	2011	2012	2013
Price/ton	US\$200	US\$230	US\$255	US\$270	US\$250

Source: ZimPhos

Import Parity

Import parity is at US\$220 per ton compared to the price of US\$250 per ton.

An increase in capacity utilization to 80 %, reduction of electricity tariff from 9.83 to 3 US cents and a reduction of interest rates from the average of 18 -20 % will reduce the cost per ton from US\$306 to US\$220 which is close to the 2009 level of US\$200. Historically phosphates have been 20 percent cheaper than imports. Maintenance costs are high because of use of aged equipment.

ZimPhos has a banking facility of US\$10 million that is attracting a penalty rate of 30%. According to management a facility of US\$15 million at an interest cost of 10 % with a repayment period of at least 3 years would help the company to regain its competitiveness.

Challenges Facing The Company

Lack of sufficient working capital, current facility is too expensive and is not tenable.

Low capacity utilization, this is affected by competition from fertilizer imports. The impact of undercapitalized farmers indirectly affects ZimPhos as ZFC and Windmill experience downturn in demand for local fertilizers. The sector would benefit if farmers had access to structured finance to support farming.

Labor

The company would like to reduce labor costs but does not have the resources to pay for retrenchment. The company is resorting to placing workers on unpaid leave on a rotational basis. The Labor Act provides that workers shall be on unpaid leave for at least six months in a year. Special measures to avoid retrenchment are permitted for a maximum of one year. This does not enable the company operating at 20 % to sufficiently adjust its labor. A flexible labor regime that permits the company to pay for actual work done would help the company to recover. The company would need to reduce its labor costs by 66 % and also pay for actual work done to regain its competitiveness.

Regulatory Costs - Zimphos

1EMA charges are exorbitant with the following charges:

Quarterly fees for tailings dumps etc –US \$ 50 000

Truck movement fees - US \$100 per truck or wagon of acid imported;

Fines – the fines are exorbitant..

2. Minimum Wage Policy.

The minimums agreed at National Employment Council level create expectation and are forced on the company even under the circumstance where they are not affordable.

3. The company can meet local demand of phosphates under the above conditions including ensuring that farmers are well funded.

Summary Costs – Primary Producers

Sable Chemicals

Ammonium Nitrate (AN) – the current local price is US \$ 560 based on a cost of

Table 60: Import Parity Price Comparison AN

Source	Zimbabwe	FOB Beira	China	Egypt
Current	560	425	200	350
Zim with cost reduced / landed	490	550	500	500

Source: Sable Chemicals

Table 61: ZimPhos – Super Phosphates

Source	Zimbabwe	Import Parity
Cost	306	220
Local Price	250	220
Zimbabwe with reduced costs	220	220

Source: ZimPhos

The local price of US\$250 is higher than the import price of US\$220. Import parity price can be matched by increasing:

- Capacity utilization to at least 65%
- Working capital at 10% per annum
- A introducing a flexible labor regime.

Secondary Production Stage

**Table 62: Cost Structure – Secondary Stage Granulation and Blending
Compound D 10 – 20 - 10**

Type	% of total	Cost Current at 22 % capacity	Unit Cost Current	Reduced To unit cost	New Cost at 65 % capacity
AN	10	72	560	490	63
Phosphates	47	338	250	220	297
Potash	15	108	560	560	108
Total	72	518			468
Power	7	50	14.5	3	10
Labor	3	22		15	7
Spares	2	14		13	13
Depreciation.	3	22		7	7
Consumables	1	7		7	7
Water	1	7		7	7
Total Process					

Admin labor	2	14		5	5
Admin expenses	2	14		5	5
Finance	4	29	18	10 %	16
Profit	3.00	23			18
Total	100.00	720			563

Source: ZFC

Import parity price: US\$600 per ton.

Current local price: US\$720 per ton.

To reduce to US\$563:

Cost Reduction due to:

- Reduction in local materials; AN and super phosphates as recommended in item 10.
- Increase in capacity utilization from 22 % to 65 %.
- Reduction in electricity tariff from 14.5 US cents to 3 US cents per KWh.
- A flexible labor regime

Table 63: Summary – Process Costs

Cost Type	Current Cost	Reduced Cost
AN	560 per ton of AN	490 per ton
Phosphates	250 per ton P	220 per ton
Potash	560 per ton of K	560 per ton
Variable Costs	28 of fertilizer	28 per ton of fertilizer
Power	50 “	10 “
Fixed Costs	72 “	30 “
Finance	29 “	18 “
Profit	23 “	16 “

Source: Author's Compilation

Table 64: Comparison – Current Costs – Import Parity Prices

Compound D	10-20-10		14 -28-14		7-14-7	
Cost Type Compounds	Current Costs	Reduced Cost	Current	Reduced	Current	Reduced
N	134	119	71	62	123	103
P	290	266	387	433	263	174
K	98	98	135	135	66	66
Variable	28	28	28	28	28	28
Power	50	10	50	10	50	10
Fixed	72	30	72	30	72	30
Finance	29	18	18	18	18	18
Profit	34	29	39	36	30	23
Total	720	598	800	752	620	429
Import parity	600	600	775	775		
Ratio (%)	83		97			

Source: Authors' Compilation

Other Potential Cost Savings

Raw materials – Transport Cost

Table 65: Maize Fertilizer

Element	Road per ton (\$)	Rail per ton (\$)	Blended rate	Difference with Rail per ton (\$)	Ratio per ton (%)	Saving per ton (\$)
AN	26	17	23.75	6.75	7	13.31
Phosphates	86	55	78.25	23.25	14	26.62
Potash	86	55	78.25	23.25	7	13.31
Total	198	127	180.25	53.25	28	53.25

Source: ZFC

Table 66: Tobacco Fertilizer

Element	Road per ton (\$)	Rail per ton (\$)	Blended rate	Rail per ton (\$)	Difference with rail per ton (\$)	Ratio per ton (%)	Saving per ton (\$)
AN	26	17	23.75	17	6.75	5	8.32
Phosphates	86	55	78.25	55	23.25	15	24.96
Potash	86	55	78.25	55	23.25	12	19.97
Total	198	127	180.25	127	53.25	32	53.25

Source: ZFC

The current average ratio of split between road and rail in the movement of raw materials are 75 percent by road and 25 percent by rail. Prior to onset of the economic crisis transportation was 100 percent by rail.

Distribution and marketing

The two companies that produce fertilizer compounds and blends in Zimbabwe distribute their compounds, straights and blends to wholesalers and retailers, who constitute the dominant marketing channels for fertilizers. The other distribution channel is the public-sector input support scheme through which the State purchases fertilizers for distribution to farmers.

Large agro -traders, including farmers' buying cooperatives and syndicates or input-buying clubs, obtain stocks from the producers for onward sale to farmers. Individual farmers and agro -supply retailers also buy fertilizers directly. Entry into and exit from the sector is easy. There are no legal restrictions on the types and numbers of marketing channels.

In the smallholder subsector (mainly communal lands and resettlement areas), the supply of inputs is mainly through general dealers and small agro -dealers. These operators have the advantage of proximity to the farmers.

Contract Farming

Some private-sector agro - firms involved in buying tobacco, cotton and sorghum have their own input support or loan schemes through which they acquire fertilizer for distribution to the producers of the relevant commodities. The farmers reimburse by selling their commodities to the companies.

A number of non-governmental community development organizations, Care International, World Vision and Citizens Network for Foreign Affairs working with the ACFD ran a program for training and establishing agro -

dealers in smallholder areas. About 2 000 dealers were trained in the basic principles of storing, retailing, pricing and service.

PUBLIC-SECTOR DISTRIBUTION CHANNEL SYSTEM

The government agencies involved in fertilizers include agricultural extension departments and parastatals, the Grain Marketing Board (GMB) and the Agricultural and Rural Development Authority (ARDA). The GMB is responsible for the importation, storage, transport and wholesaling of the main food grains, i.e. maize and wheat. The ARDA is responsible for running State farms as well as promoting rural and agricultural development through infrastructure support and development. These channels are used by the Government to supply subsidized fertilizers, seeds and other inputs to smallholders on communal lands, resettlement areas and to A1 and A2 farmers in the new farming areas. Because of bureaucratic ordering and distribution processes and the limited amount of money, not all farmers are able to access fertilizers in a timely manner through this system. However, the major problem has been the failure by some of the farmers to repay the sums they have borrowed.

The role of the government in promoting fertilizer supply and use

The Government of Zimbabwe has established some measures for promoting the supply and use of fertilizers. These include:

- price controls fixing the maximum wholesale and retail prices for agricultural inputs;
- subsidized credit scheme for input purchases;
- crop input schemes providing seeds, fuel and fertilizers to smallholder farmers;
- support for the agro-input dealer programs.

Constraints and challenges of fertilizer distribution in Zimbabwe

A major constraint facing distributors is the above-mentioned general shortage of fertilizers. The shortage is in terms of both absolute quantities and timing. Some fertilizers arrive well after peak application time. The distributors then have to carry over large unpurchased stocks. Another problem concerns the price controls. These result in reduced profit margins, particularly for rural traders who face high transportation costs. The Government input schemes through which fertilizers are provided to farmers through the GMB and other government agencies also have an adverse impact on agro -dealers as they reduce the quantities purchased from the dealers. A further constraint is the lack of storage capacity among small agro -dealers.

Other factors determining the profitability of fertilizer use varied with the farming subsector. In the large-scale farming subsector, the main determinant was the ability of farmers to procure fertilizer early in the year, around June/July, prior to the fertilizer price adjustment for the following season. The farmers reduced transaction costs through bulk buying and using their own transport. The large-scale farmers had appropriate equipment for precise and timely fertilizer application. The rates applied were based on individual soil analyses. The shortages and price increases had a negative impact on fertilizer use in the smallholder subsector, which tends to buy fertilizer as the need arises.

Studies on the economics of fertilizer use in the smallholder subsector have given variable results but generally show suboptimal returns owing to suboptimal application rates. This is attributed partly to farmers not applying recommended rates owing to their inability to purchase the full quantity of the required fertilizers. However, even where farmers applied fertilizer according to the general recommended rates, they were often under applying them owing to a lack of information on their specific requirements.

Distribution of Regulatory Costs

ZFC and Windmill have a distribution network throughout the country. The fixed costs of running the distribution points are high due to various licensing fees raised by statutory bodies as stated below:

Table 67: Regulatory Costs for each Distribution point per year

Regulation	Cost US\$
Environmental Management Agency (EMA)	400
Local Council	670
Trading license	1 500
Agricultural Marketing Authority	500
MCAZ	200
Total	3 270

Source: ZFC

These regulatory costs are too high considering that some of them are duplicated at every stage of processing. Each regulator raises charges without regard to the charges from other regulators also the same regulator would have raised the same charges along the supply chain.

Conclusion and Recommendations

Since the land reform agriculture is now dominated by smallholder farmers namely, rural, resettlements, A1 and A2. There are a few large-scale freehold farmers left. The country should set a strategy that will make fertilizer accessible, affordable and encourage its efficient usage.

In the smallholder subsector on the communal lands and resettlement areas, there is a need to increase land and labor productivity and to intensify production in order to ensure household food security and produce an income.

FAO (2004) study reports that increases in crop production in the past two decades have resulted largely from an expansion in area rather than increases in land and labor productivity. Crop yields remain low compared with the potential in the different Agro-Ecological Zones (AEZs) and with the yields of the same crops obtained in the large-scale farming subsector.

The regular application of fertilizers is necessary for the optimal economic production of most crops. However, since dollarization, fertilizer use in the smallholder subsector has declined owing to high fertilizer prices and financial constraints.

Small-holder farmers account for only one-fifth of total fertilizer demand. There is ample scope for increased demand from this subsector both by those farmers already using fertilizer increasing their rates of application and by others adopting fertilizer use.

The total fertilizer demand from the new farming subsectors may remain below that of the former large-scale farmers if the rates of application and the area of land under crop remain lower than that of the former large-scale producers (FAO 2004) There is a notable increase in the use of fertilizers by farmers who are farming under the contract scheme arrangements.

There are a number of major constraints on fertilizer use. These include:

- Availability and affordability of the fertilizers to farmers. Improved arrangements for the financing of farmer credit are required.

- Access to fertilizers. Fertilizers and other inputs (such as seeds and agrochemicals) should be more readily available in the farming areas.
- Supply of fertilizers. This needs to be increased.
- Fertilizer production technologies and facilities need improvement.
- Competition from imports can be matched with overall improvement in the general economic environment of the country.

In a study on persuading farmers to use fertilizers, Rusike and Dimes (1993) highlighted the following factors:

- More precise weather forecasts concerning rainfall would enable farmers to better assess the risks of fertilizer use.
- Farmers need more precise guidance on fertilizer use than provided by the current standard or blanket recommendations.
- Selling fertilizers in small packs would encourage wider use by farmers.
- The supply of other inputs (e.g. seeds) should be linked to that of fertilizers.

The above measures should improve local demand of fertilizers and enable smallholder farmers to buy their requirements in advance of the rainy season. This should enable producers to plan better.

Recommendations

- It is recommended that all fertilizer producers (ZimPhos, Windmill and Dorowa Mines, like Sable Chemicals, are given a special power tariff to enable them to reduce the cost of fertilizer. A tariff of 3 United States Cents based on the export tariff of ZESA is recommended. This represents the most efficient cost of producing power. The current arrangement where Sable Chemicals is charged 3 US cents per KWh with 6 cents being charged to government is not sustainable; government has no budgetary capacity to pay, the tariff of 3 cents reflects the marginal cost of producing power, (where there is perfect competition, marginal cost is equal to marginal revenue that is equal to price: $mc = m. = p$) ZESA is operating in a monopolistic situation and lacks motivation to be efficient. Notwithstanding this the continued operation of Sable Chemicals using the current electrolysis process as mentioned below is very costly to the economy and the best recourse is to seek for alternative technology and release the power tied to the process to other more productive sectors..
- The producers need a firm market to improve capacity utilization. The country requires on average 350 000 tons of fertilizer based on the current agricultural activities. The two secondary producers have more capacity than this and should be allowed to export production that is in excess to requirements. The fertilizer requirements should be assessed regularly in advance of the rainy season and be agreed with the Ministry of Agriculture. The producers should be allowed to export the excess with reduced administrative hindrances.
- The most reliable market for fertilizer is from contracted farmers whose financiers seem to prefer imported fertilizer. The country supports the principle and policy of self - sufficiency in agricultural production. Fertilizer is an important input in crop production and importing large quantities as is unfolding implicitly means that the country is importing a portion of its crop even though producing locally. This can be demonstrated by the production of cotton, soya bean and tobacco where there is evidence pointing to the foreign content in production being more than the local content. This is however beyond the scope of this study.

Fertilizer producers should be consulted as part of process in deciding the level of imports that are permitted, more so as affecting cash crops such as tobacco, maize, cotton and soya beans. It is noted that some restrictions already exist in the form of import permits. However there is a lack of consultation between the issuing authorities and the local industry resulting in import permits being issued for fertilizers that can be manufactured locally. The

practice in place in the oil industry could be adopted for the sector. Import permits that are issued in liaison with the industry before being issued.

- Government should come with sufficient funding at the right cost for both secondary and primary producers.
- Deliberate effort to use rail to move raw material inputs and finished fertilizer.
- A review of trade taxes, local authority licensing costs, various EMA fees and fines and other regulatory charges as recommended in the main study report would help to bring down fixed costs.

The review of these costs would be part of a subsidy mechanism to the producers of fertilizer.

The recommendations contained in the main study are particularly relevant to the fertilizer industry in view of its current status where firms are characterized by weak balance sheets. The “ internal devaluation” process that is proposed will help the companies to reduce their labor, finance, electricity and other operational costs.

Primary Producers

Both Chemplex (Zimphos) and Sable Chemicals have peculiar problems that need to be addressed urgently.

Chemplex Cooperation

The company is in need of recapitalization, according to management its going concern capabilities are under threat. It is wholly owned by government which presently has no capacity to inject fresh money. The company will not be able to go much longer without recapitalization.

Sable Chemicals

The company cannot continue with the present electrolysis technology, consuming 9 – 10 percent of national grid at full throttle. This is too much power in a power deficit country. The opportunity cost of power has not been evaluated but it is much higher than the 6 US cents that is charged as an additional charge to government. There have been calls from both CZI and Chamber of Mines to switch off the electrolysis process at Sable Chemicals. This would release power to the productive sectors of the economy. Government is budget constrained and cannot afford to carry the 6 US cents to support an inefficient process. The government has not paid the subsidy which has accumulated to over US\$110 million. This makes 3 US cents the effective tariff.

Companies with dedicated power supplies are charged 14.5 US cents. The opportunity cost to the economy based on 3 cents is 11.5 cents.

Because of power shortfall companies have standby generators whose power costs 25 US cents on average. The opportunity costs on 14.5 cents is 10.5 cents.

With Sable Chemicals operating at 40 percent capacity, the total power consumed per year is 80 GWh. The total opportunity cost on charging 3 cents is US\$ 9.2 million per year. The cost arising from using generators is US\$ 8.4 million. The total cost is 17.6 million. This is a real cost that the economy is carrying because of the continued use of an outdated technology.

In view of above opportunity cost which is not sustainable for the economy it is prudent that the electrolysis plant is shutdown. Ammonium Nitrate could be imported whilst a more efficient technology is adopted. A strategy for alternative sourcing of ammonium nitrate should be pursued and the power dedicated towards the electrolysis process can be allocated for more efficient use in the economy.

Secondary producers have relatively strong balance sheets and with enhanced capacity utilization and other improvement measurements as espoused in this study they can produce competitively and import ammonium nitrates for their requirements.

A viable strategy to build an alternative source of nitrogen nitrate should be pursued with private sector participation whilst secondary producers import ammonium nitrate.

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ANNEX 1: THE OECD REFERENCE CHECKLIST FOR REGULATORY DECISION-MAKING

1. The problem to be solved should be precisely stated, giving evidence of its nature and magnitude, and explaining why it has arisen (identifying the incentives of affected entities)
2. Government intervention should be based on explicit evidence that government action is justified, given the nature of the problem, the likely benefits and costs of action (based on a realistic assessment of government effectiveness), and alternative mechanisms for addressing the problem.
3. Regulators should carry out, early in the regulatory process, an informed comparison of a variety of regulatory and non-regulatory policy instruments, considering relevant issues such as costs, benefits, distributional effects and administrative requirements.
4. Regulatory processes should be structured so that all regulatory decisions rigorously respect the “rule of law”; that is, responsibility should be explicit for ensuring that all regulations are authorized by higher-level regulations and consistent with treaty obligations, and comply with relevant legal principles such as certainty, proportionality and applicable procedural requirements.
5. Regulators should choose the most appropriate level of government to take action, or if multiple levels are involved, should design effective systems of co-ordination between levels of government.
6. Regulators should estimate the total expected costs and benefits of each regulatory proposal and of feasible alternatives, and should make the estimates available in accessible format to decision-makers. The costs of government action should be justified by its benefits before action is taken.
7. To the extent that distributive and equity values are affected by government intervention, regulators should make transparent the distribution of regulatory costs and benefits across social groups.
8. Regulators should assess whether rules will be understood by likely users, and to that end should take steps to ensure that the text and structure of rules are as clear as possible.
9. Regulations should be developed in an open and transparent fashion, with appropriate procedures for effective and timely input from interested parties such as affected businesses and trade unions, other interest groups, or other levels of government.
10. Regulators should assess the incentives and institutions through which the regulation will take effect, and should design responsive implementation strategies that make the best use of them.

ANNEX 2: CONDITIONS IN CENTRAL AND EASTERN EUROPE IN THE WAKE OF THE GLOBAL FINANCIAL CRISIS

The state of their economies was as follows, salient features:

1. The countries were faced with a financial crisis after the collapse of the Soviet Union.
2. The countries had inflation hovering around 1 000 percent.
3. There was corruption and organized crime in some of the countries.
4. The countries had a record of poor fiscal discipline and large public debt.
5. Most of the countries had large budget deficits.
6. Wages and real estate prices were high.
7. Unemployment was high.
8. Investor confidence was very low.
9. The countries had lost competitiveness.

Major Anti-Crisis Measures Adopted

The most radical and successful changes took place in the three Baltic countries, particularly Latvia, but also in Lithuania and slightly less so in Estonia. The main thrust of the measures was for the countries to regain competitiveness. The countries had their national currencies fixed to the Euro. The countries had large current account deficits, which under the conventional wisdom of the IMF would indicate the need to devalue the currency. While the countries had the option to devalue, they instead pursued a policy of ‘internal devaluation’, cutting wages and public expenditures, which rendered their cost levels competitive and allowed them to turn their large current deficits swiftly into substantial surpluses.

The main measures taken were:

1. Fiscal adjustments – substantial cut of public expenditure – material civil servants salary cuts.
2. Voluntary cuts of ministers salaries by 35 % in Latvia.
3. In order to cut production costs substantial wage cuts in public sector organizations and in the private sector.
4. Labor markets were deregulated to make them adjustable by employers as circumstances would demand.
5. Safeguards were made for the poor and social benefits for the middle class were trimmed.
6. There were minor changes in the rates of taxation. Expenditure cuts were preferred to tax hikes in view of that people do not appreciate paying taxes when they receive fewer public services.
7. Reforms were affected in public administration, reducing red tape; reforms were also made in the health and education sectors.
8. In Latvia the administrative reforms surprisingly turned out to be politically easy, citizens preferred fewer bureaucrats and less bureaucracy. The Latvian government closed down half of its agencies, cut the public wage costs by 26 percent in one year, trimmed its labor numbers by 29 percent. Measures were placed to stipulate a ceiling of salaries of state owned corporations. Latvia also closed some hospitals and schools and introduced some reforms in the school systems. It also had too many institutions of higher learning inherited from the Soviet era; there was some rationalization to focus on quality improvement.
9. The countries engaged in improving the cost of doing business
10. Reforms were initiated in respect of pension funds schemes.

The reform measures that were instituted by the political economy have been summarized in the dictum: Crisis made the unthinkable possible. There were two major objectives for the reforms:

1. To overcome macroeconomic crisis and to bring it under control.
2. To develop conditions for a return to high economic growth into the future.

ANNEX 3: PDL AND WAGE NEGOTIATIONS IN ZIMBABWE

The reference and application of the concept of PDL in wage negotiations in Zimbabwe predates the country's independence in 1980. Cubitt and Riddell carried out the major study on the PDL in Zimbabwe in 1974. Later studies updated the PDL levels for inflation to make estimates current. The PDL was designed to be "time bound – specific" location bound measures of the price of a particular bundle of commodities required for subsistence of defined households. (Clarke 1977:1). The surveys on PDL were therefore seen as a basis for tracking the money price of basic "subsistence". It was inevitably used as a basis to check on the adequacy or otherwise of minimum wages. According to Clarke, the PDL illustrates the extent to which wage structures remain palpably inadequate in the satisfaction of the basic consumption needs of workers forced to be dependent on them. (1977).

The attainment of independence in April 1980 was accompanied by nationwide strikes emanating from a crisis of expectations. As a result, government constituted a Commission of inquiry under the chairmanship of Roger Riddell in September 1980 to look into incomes and conditions of service with a view to adopting an incomes policy to assist in correcting inherited anomalies. The Commission highlighted the need to introduce policies to alleviate poverty and narrowing income differentials in what it termed – growth with equity through minimum wages which should solely meet the needs of workers and their families and not based on the place where work is carried out or the type of work performed. It is only through adopting the principle of need that present (and future) anomalies can be removed. Thus, whether a person is employed as a domestic worker, as a factory worker the criterion of need should determine minimum wages.

Based on the PDL for an average family of six, a father, mother and four children, the "ideal" target income paths were plotted for urban and rural based workers. The Commission recommended that the target wage policy was to reach 90 percent of PDL by mid - 1984 (after 3.5 years) with a two-tier wage system (the remaining 10 percent would allow for rewarding of human capital traits). This approach of linking the minimum wage to PDL in the Riddell report was premised on a projected growth rate of 14 percent per annum. However, when the recession of 1982/3 and three years of consecutive drought set in, the government abandoned the target wage path, and instead adopted a stabilization program with a wage restraint component. Indeed the Riddell Commission was aware of the specific conditions on which the wage target was based, warning against implementing it in conditions of economic decline.

Source: Zimbabwe Public Service Employment: Pay Issues and Options 2013

ANNEX 4: TOOLS TO REVIEW EXISTING REGULATION³⁴

Tools	Key Components	Main Advantages	Main Disadvantages	Examples
Process reengineering	To document and streamline business government interactions and internal government procedures affecting businesses; detailed review of transactions and processes within and among institutions; streamlined processes leading to faster time	Can be a quick win; often easy to implement (“stroke-of-the-pen” reforms)	Does not address underlying regulatory policies and constraints	Worldwide at all levels of government
The Guillotine	To reduce unnecessary licenses and other selected regulations quickly; reversal of burden of proof – regulators justify need for regulations; licenses / regulations reviewed according to standard criteria; followed by reform proposals; cross-governmental initiative; common understanding of criteria to determine burdens; opportunity for major reforms	Through reversal of burden of proof, the tool challenges the status quo; understandable and attractive for reform champions	Requires thorough coordination across government; does not by itself ensure that implementation takes place	Some developed and developing countries (Croatia, Moldova, Kenya, Mexico, Sweden, Korea)
Standard Cost Model and Regulatory Impact Analysis	Systematic review and estimation of burdens imposed by particular legislation and regulations on businesses and economy	Measures baseline and potential outcomes of reforms, provides impetus for needed reforms; Proven track record in OECD countries; can provide very detailed and useful information for measuring baselines and outcomes of reform	Information difficult to gather in developing countries; it relies on varying degrees of assumptions; does not include broader regulatory compliance costs	OECD countries, and increasingly in developing countries (Kenya, Vietnam, Burkina Faso, Bosnia-Herzegovina, Madagascar)
Bulldozer	Bottom-up approach; strong involvement from stakeholders	Fast-track tool, minimize political opposition	No systemic approach, dialogue with regulators needed	Bosnia & Herzegovina
Scrap and build	Severe approach to change an entire regulatory regime	New regulatory regime rethought and rebuilt	Political support, high technical skills, careful assessment needed	Japan and the Netherlands
Staged repeal	Systematic review to group regulations by age to later repeal them after review	Once completed, it identifies the stock of regulations; eliminates unnecessary regulations after review	Clear deadlines; expert group of reviewers	Australia and Canada
Review and sunset Clauses	Take action to review and cancel regulations; sunsetting gives regulations an automatic expiration date	Solve particular problems; diminish opposition; good in areas with quick technological changes; brings flexibility	Small results if not done as part of broader reviews; careful selection	Australia, Switzerland and UK

³⁴ This chart was slightly modified from International Finance Corporation, 2010, “Tools and Approaches to Review Existing Regulation”, World Bank Group, Washington DC.

ANNEX 5: ANALYSIS OF THE ZIMBABWEAN FINANCIAL SERVICES SECTOR

The country's banking sector exhibits a blend of monopolistic and oligopolistic structures. Products offered are differentiated but are similar in nature. It was observed in the section of wages that from the sample of sectors examined the minimum wages for the sector is the highest. From the analysis below salaries and wages constitute a significant portion of operational costs making an average of more than fifty percent of total operational expenses. Therefore employment costs have a material influence on the level of fees, commissions and interest rates.

Between January 2013 and December 2013 the Reserve Bank of Zimbabwe (RBZ) had a memorandum of understanding (MOU) with the Bankers Association of Zimbabwe that regulated the activities of banks. The MOU stipulated charges on fees and commissions as well as interest on deposits and money lent out. The MOU expired in December 2013 and has not been renewed leaving the industry to self - regulate.

Table 68: Banking Performance

Bank	Net interest to total income (%)	Commissions and fees to total income	Salaries to total expenditure (%)	Salaries to interest (%)	Salaries to total income (%)
Regional average	62 – 70	30 – 38	35 – 55	50 -65	20 – 39
Barclays	29	64	54	145	43
NMB	42	31	36	55	19
Stan Chart	27	73	59	80	34
MBCA	42	58	73	72	80
CBZ	66	37	55	51	34

Source: Bank's Annual Reports

The banks can be grouped into two as follows, based on the above analysis.

1. Banks that have a balanced mix of interest and other income.
2. Banks that are dependent on other income (fees and commissions) as their main source of revenue and restrict lending.
 - Barclays Bank interest to total income ratio at 29 percent is low, the bank is recovering its operational expenses from fees, commissions and other income. The ratio of salaries to interest at 145% shows that it is not able to pay its salaries from its core business of lending money to its customers. Based on the above the bank charges, withdrawals fees etc. of Barclays Bank should be much higher than those charged by banks who derive their income from both interest and other income. This is however not the case as the commissions and other fees by the other banks are the same, with small differences where they exist.
 - Compared with the regional average the ratio of interest income to total income for CBZ is the only one in the sample that is within the regional benchmark ratio.
3. Non funded income should be volume driven. It seems that the banks that are dependent on high fees and commissions are price setters in this income category, with those that are dependent on both fees and interest being price followers. The banks that depend on other income are part of the banks that control 65 percent of the assets in the sector.

Table 69: Loans and Advances Deposit Ratio

	Loans and Advances to Deposit Ratio	Ratio of Deposits Held to Total Country Deposits
Barclays	42	6.5
NMB	80	5
Standard Chartered	66	9.5
MBCA	54	4.2
CBZ	77	32
Industry Average	77	

Source: Zimbabwe Banking Sector's Competitive Landscape (2013)

It is widely publicized that bank deposits are predominantly short term and do not allow for long term lending to firms. Main players in the sector are competing for US\$ 4.4 billion deposits, the level where deposits have plateaued. According to Zimbabwe Banking Sector's Competitive Landscape report of 2013, 5 top banks by assets account for 65 % of sector assets at US\$ 2.9 billion. Deposits are spread as follows:

Table 70: Deposit Ratio to Total Country

Bank	CBZ	Banc	Stanbic	Stan Chart	Barclays	FBC	NMB
Ratio (%)	31.58	9.75	9.75	9.25	6.5	7	5

Source: Banking Sector's Competitive Landscape (2013)

According to the report foreign owned banks with the exception of Stanbic Bank have adopted a conservative approach to lending and are dependent on other income to finance operational expenses.

Table 69 shows that Barclays at 42 % loan / advances to deposit ratio has a conservative lending policy, followed by MBCA and Standard Chartered. The Standard Chartered ratio has been low and has increased to the 60 % level.

Labor Costs

Labor costs constitute a significant portion of banking costs. The minimum wage level for the sector has been the highest since dollarization and remains at this position. The role of the banking sector in the recovery of the economy has been noted as problematic, with high uncompetitive interest rates. The lack of sufficient funds in the banking sector that can be advanced to support economic activities is negatively affected by the general lack of liquidity in the country and is understood as a sovereign related matter. These relate to the historical loss of capital as a result of hyperinflation, low foreign direct investment and economic isolation by major international lenders, the World Bank, IMF and other bilateral lenders. Notwithstanding the country risk, the cost of banking services as reflected by both transaction costs (non - funded income) and interest rates are heavily weighed on by the cost structure of banks.

Interest Costs - Cost build up

Foreign sourced funds

Average lenders cost	2 percent points
Country risk (average)	5 %
Local cost plus profit	12 %
Foreign costs average	7 %

Locally generated costs are materially higher than external costs that the sector has no control of. According to the Bankers Association of Zimbabwe local pension funds require 7 percent interest rate per annum for their funds placed with the banks. This is the same level covering foreign costs from off shore funds. Labor costs as shown above are on average 55 % of operational costs. The sector and the rest of the economy have control over the larger part of financing costs which has been singled out as one of the high costs negatively affecting the country's ability to compete.

The impact of non - performing loans on banking transaction costs could not be ascertained in this study due to time constraints, however evidence points to that the banks that have taken a conservative lending view have a low ratio of non- performing loans yet their bank charges are relatively high.

The smaller asset based banks tend to attract deposit funds by offering investment rates which are higher than those offered by larger banks. Whilst investment rates are higher as the investment period increases the rates offered by the smaller banks tend to be higher resulting in relatively higher lending rates to their clients. This practice has the effect of exaggerating the level of interest rates thus inducing the default rate to service borrowings.

Recommendations

1. The uniform charges of transaction costs are characteristic of a monopolized sector. It appears that competition is by way of winning deposits from the market based on perception of confidence in a bank. There is competition in winning deposit funds based on reputation and perceived risk. Services which appear differentiated are intrinsically similar and there seems to be cartelization and price fixing by a few dominant players who are price setters. It is therefore recommended that a study on the pricing model of banking services is commissioned. It should also be observed that the broad recommendation for “internal devaluation” is applicable to the sector and will help to bring down interest rates and other costs of services.
2. It is also recommended that the Reserve Bank of Zimbabwe sets standards based on best practice to measure critical ratios that will minimize off - loading inefficiencies on the economic.

ANNEX 6: LACK OF SCALE – THE ROLE OF THE AGRICULTURE SECTOR

Stakeholders consulted advised that one of the major factors negatively affecting costs and competitiveness of firms was poor performance of the agricultural sector. Stakeholders are concerned that since 2000 when the land reform program was implemented, the economy has continued to suffer from the adverse effects of the policy. There is concern that efforts to revive the economy will not be optimal without restoring productivity in the sector to at least the pre - 2000 threshold. There is a strong view that firms will not achieve economies of scale and compete sustainably unless the performance of the sector is restored.

According to ZimTrade 60 percent of manufacturers are dependent on agriculture for raw materials or as a market for inputs. Over 70 percent of the Zimbabwean population derive their livelihood and income from agriculture. Also agriculture related employment supported a third of the labour force in formal employment.

There are strong linkages between agriculture, manufacturing, mining and commercial sectors. Whenever the agricultural season was good, the performance of other sectors was correspondingly good, because of strong forward and backwards linkages that exist between agriculture and other productive activities and commercial services. The performance of the entire economy is heavily influenced by how the agricultural sector is performing. Any positive developments in agriculture filter through the rest of the economy. “Linkages between agriculture and manufacturing are particularly strong.” (Zimtrade) Manufacturing processes many agricultural outputs while also supplying agriculture with many of its input requirements.

This corroborated by FAO (2006) which states that the Zimbabwe’s economy relies heavily on the agriculture sector. Agriculture contributes about 18 percent to its gross domestic product (GDP). Almost half the country’s exports are derived from agriculture, especially cotton, tobacco and the horticultural crops. The major crops grown in Zimbabwe are: maize, cotton, soybeans, wheat, tobacco and horticultural crops such as roses, cut flowers and vegetables. Maize is the country’s staple crop.

The reliance of the economy is further buttressed by the FAO (1999) study which states that from 1980 to 1994, agricultural output grew at about 1.4 percent per year, below the annual population growth rate of about 3 percent for the same period. The economy grew by an average of 3.7 percent per year from 1980 to 1990, compared to 2.2 percent per year for agriculture. With the record drought of 1991/92, agricultural output fell by 5 and 18 percent in 1991 and 1992, respectively, before recovering in 1993 and in 1994. The rest of the economy contracted by 5 percent in 1993 and grew by over 8 percent in 1994, an indication of the dependence of the general economy on developments in the agriculture sector.

The Government of Zimbabwe has always recognized the role of agriculture as pivotal in setting direction in the performance of the economy. The vision 1995 – 2020- recognizes this role as stated below and summarized in the vision’s agricultural policy:

AGRICULTURE POLICY

The basic policy aim is to promote and sustain a viable agriculture sector. This entails developing and managing resources through the provision of appropriate technical, administrative and advisory services. In this way the agriculture sector can optimize productivity and contribute to the equitable and sustainable social and economic development of Zimbabwe. Based on the assumption of good agricultural seasons with a possibility of at least one drought season every four years, projections indicate the gross output of the sector growing at an annual average rate of 5 percent. Thus, the sector will contribute over 21 percent to GDP in the short to medium term as the economy undergoes structural transformation. This level of output will enable export earnings to increase the current growth rate of 7 percent per year. The sector will remain one of the largest employers of labour.

In 1996, the government launched the Zimbabwe Agricultural Policy Framework, 1995-2020 (ZAPF), which subjects the agriculture sector to the principles of financial and economic viability. A stable macro-economic environment and public sector-financed supporting infrastructure are to facilitate private sector investment and so

achieve growth in agricultural output. The ZAPF recognizes that incomes generated in the smallholder sector and related rural-based industry are important for eradicating poverty, hunger, malnutrition and underemployment. Its main aims are:

- commercialization of smallholder agriculture;
- a long-term increase in agricultural output which exceeds population growth;
- a cost effective expansion of infrastructure to cover all rural areas; and
- the reversal of environmental degradation through the adoption of sustainable farming systems.

More specifically, the objectives pertinent to fertilizer use are:

- to support pricing and marketing policies which promote diversification into new varieties of crops and breeds of livestock;
- to expand and diversify exports of agricultural products by making the sector more price competitive and export oriented;
- to expand irrigation facilities with emphasis on high value crops;
- to establish secure tenure in the smallholder farming areas particularly in the communal and resettlement areas;
- to ensure environmental impact assessment of all water development projects;
- to promote mechanization in the smallholder farming sector;
- to encourage private sector participation in the distribution of inputs to the smallholder farmers; and
- to make inputs readily accessible and affordable to the smallholder farmers in order to increase utilization of improved inputs.

One precise target is the doubling of grain yields in the smallholder sector; another is to increase its irrigated area from 10 000 to 50 000 ha. The ZAPF also stresses the importance of access to credit facilities, highlighting the need:

- to ensure that adequate credit facilities are available for input supply;
- to provide financial support to smallholders; and
- to encourage private sector investment in the rural areas, to complement government efforts.

A fertilizer strategy for Zimbabwe

The smallholder sector lies at the heart of future agricultural developments and input supply is a basic determinant of future prospects.

Specific objectives on fertilizer supply highlight the fertilizer industry's need:

- to revamp plants in order to increase production, cut costs and be competitive with imports;
- to expand and service the smallholder sector more effectively;
- to break the monopolistic structure and facilitate other decentralized players; and
- to diversify fertilizer formulation in order to meet the needs of a diverse market.

In order to achieve the planned increase in agricultural production, government, the private sector and other stakeholders need to invest in agricultural infrastructure. Indeed, the main objective of the Agricultural Sector Investment Programme (ASIP) is to enable the achievement of the policy goals in the effective utilization of national resources. The ASIP targets are:

- smallholder irrigation development;
- the upgrading the level of agricultural education and the training facilities to cater for specialized aspects of agriculture;
- investment in input supply, marketing and distribution facilities; and
- investment in programmes that support and strengthen agricultural research and extension services.

Source: Extract From Fertilizer Strategy For Zimbabwe (FAO, ACFD) 2006

According to the World Bank study, Growth Notes (2012) growth in the manufacturing sector appears to depend more on the internal demand generated by the two main drivers of growth, namely agriculture and mining. The quality of policy in the two sectors will be the chief determinant of the rate of growth of the Zimbabwean

economy in the medium term. Stronger policies in the two sectors will ultimately have positive downstream effects on the manufacturing sector and services.

The study (WB 2012) notes that most of the old large commercial pre 2000 farms have been dismantled and the existing large commercial ones are still battling recovery. The Zimbabwean agriculture has lost its leading role of the past and from this perspective it has lost the opportunity to lead a potentially vigorous supply response to recent higher international prices.

The land reform process negatively impacted accumulation of capital, productivity and incentives. The sector has since the 2000 - 2004 been afflicted by severe droughts, quasi fiscal interventions, macro - economic collapse and hyperinflation during 2005 – 2008.

The study (WB 2012) notes that the coincidental confluence of liberalization, dollarization and higher international prices supported agricultural profitability and over 2009 – 2011 production responded vigorously to the dramatically improved incentives. The dramatic improvements however, come amidst a strongly changed agricultural structure, economic decay and persistent weakness of the overall economic climate and business culture.

Agriculture Performance

Contribution to Gross Domestic Product (%)

1995	1996	1997	1998	1999	2009	2010	2011	2012	2013
14	18	21	19	22	16	16	16	14	10

ZimStats RBZ

Contribution to Exports (%)

1995	1996	1997	1998	1999	2009	2010	2011	2012	2013
33	37	37	42	44	26	16	20	24	25

ZimStats RBZ

Challenges Facing Agriculture

Low production due lack of capital and suitably structured credit funding

- Land tenure insecurity which affects long term funding and collateral
- Farmers’ reluctance to improve and maintain or repair infrastructure due uncertain future.
- Lack of skill amongst new farmers
- Limited lines of credit
- Inadequate investment in the rehabilitation and development of irrigation systems to mitigate against droughts
- Limited use of modern technology amongst new farmers
- Inadequate national budgetary allocations
- GMB delays in paying farmers
- Unreliable power supplies and high utility charges and levies. This has affected winter cropping
- Lack of regulatory framework and policy on contract farming which makes farmers junior partners in the arrangements
- Uncertain weather pattern
- Volatile international commodity prices
- Inadequate advisory services

Other Indicators of Poor Agricultural Performance

Regional Comparison of Production Costs

Country	Barley (US\$ /ha)	Maize (US\$/ha)	Sorghum(US\$/ ha)
Zimbabwe	1 514	817	813
South Africa	1 489	634	608
Zambia	1 746	645	619

Source: Delta Limited

Zimbabwe is the most expensive with the exception for barley where Zambia is the most expensive.

Regional Price Comparison (US\$ per Ton)

Country	Barley	Maize	Sorghum
Zimbabwe	450	390	390
South Africa	298	210 (non GMO)	259
Zambia	469	220	220

Source: Delta Limited

Zimbabwe is the highest priced except for barley in Zambia.

Yield per hectore

Small scale versus large scale producers Tons / ha

Crop	Large Scale Producer	Small Scale Producer
Maize	5	.89
Tobacco	3	0.500 – 1.2

Source: ZFC

Comparison with past Achievement

Cereal Yield per Hectore – Zimbabwe (kgs per hectare)

Year	1999	2000	2010
Yield	1 625.4	1 404.5	751.5

Source: World Bank Indicators – Zimbabwe Agricultural Production (2013)

Land Under Cereal Production (Hectors in Zimbabwe)

Year	1990	2000	2010
Hectors	1 556 058	1 793 790	1 901 777

Source: World Bank Indicators – Zimbabwe Agricultural Production (2013)

Output in cereal production has been enhanced by of use of more land as yields have remained subdued. This is as a result of the challenges facing new farmers, especially access to fertilizers, its poor application where accessed and inadequate advisory services.

The yields per hectore has been on a decline since the land reform program was instituted.

Comparison Maize Production 2013 Season (tons)

Country	Output	Surplus (deficit)
Zimbabwe	1.3 million	(.500)
South Africa	13.5 million	1.3 million
Zambia	3.5 million	.500
Mozambique	1.6 million	.300

Source: CFU

Zimbabwe is the only country that has a deficit for maize national requirements. Whilst most rural households have sufficient food to last until the next season certain sections of the country experienced an intra - season dry spell which affected yields. The needs for commercial use towards stock feed manufacturing and other commercial activities are not enough and may lead to imports of grain before the next season.

Since the change of land ownership and control in 2000 the world has dramatically changed. The emerging new economic powers China and India have taken over as the main consumers of raw materials. More important to the Zimbabwean agricultural sector in the circumstance of historical loss of capital, skills, technology and a viable local market, the sector faces dramatic adverse weather changes. Below is an extract from TERRAFRICA – Regional Sustainable Land Management report which was done for Comprehensive Africa Development Programme.

Global warming increasingly altering weather patterns

The historical climate record for Africa shows warming of approximately 0.7 degrees Celsius over most of the continent during the 20th century, a decrease in precipitation over large portions of the Sahel and an increase in precipitation in east Africa (Desanker 2002). Droughts and floods have increased in frequency and severity across all of Africa, but particularly in the South and East.

These warming trends and changes in precipitation patterns are expected to increase more rapidly and will be accompanied by a rise in sea level and increase in the frequency of extreme weather events such as droughts, floods (Desanker 2002) and storms.

A study on the specific impacts of climate change on agriculture in developing countries showed that in aggregate, African countries will be let worse off. Indeed, the study noted that areas that were currently marginal could find themselves unsuitable for agriculture in the future (FAO 2007a).

Source: Comprehensive Africa Development Program

The agriculture sector therefore faces both exogenous and endogenous factors.

Exogenous Factors

The main factor is the unpredictability in the weather patterns, as observed above the trend is a negative one characterized by a high frequency of droughts and as experienced in the 2013 rain season a dry spell in the middle of a season that started with a promise of a good rainy season. Lack of foreign capital in the sector

Endogenous Factors

These are given under challenges facing the sector and have to do with Zimbabwe’s internal matters, e.g. policy, labor laws, general performance of the economy, skills and management e.t.c
These are internal weaknesses that can be overcome through policy.

Conclusion and Recommendations

Policy makers should evaluate the state of agriculture realistically and contextually under the prevailing exogenous and endogenous factors and formulate contextual strategies.

Evaluate current performance under the four land controlling categories; namely Communal, resettled farmers under A1 and A2 scheme, Contract farming arrangement and to formulate a policy and guiding principles. Evaluate the role and status of ARDA Estates and the Cold Storage Commission with a view to re – position them towards productivity.

Government should evaluate the rise of dualism in agriculture. The pre – independence era dualism consisted of rural farmers who were allocated low yielding agricultural land while the minority white farmers were allocated most of the fertile land, the rising dualism consists of new farmers who are performing as employees in the cities and are part time farmers. This has a double impact where it involves senior civil servants as there is a natural inclination to use state resources to support a private venture which may be paying better. Also there is divided attention as employees may be spending time at work but attending to personal business using state infrastructure. There is a need for transparency in contract farming under both cropping and livestock. New farmers think they are being taken as junior partners and are overcharged for inputs by financiers. Lack of transparency was also raised by fertilizer manufacturers who stated that the tender system by contracting merchants is not transparent and is tailored to support imports.

Policy makers are recommended to commission a study whose terms of reference will be to come up with a strategy that will re – structure the sector so that possession and control meets the requirements of various non - governmental agencies and to allow private sector participation. In particular a PPP arrangement with ARDA and the Cold Storage Commission would go a long way to entice private sector participation. The restructuring of the ARDA and CSC debts and management would be imperative to facilitate PPP.

Government should provide budgetary support to institutions supporting agriculture. Of note is the fertilizer industry which is in dire need of support and an essential element in the robust performance of the sector. Government should make budgetary allocations agricultural research institutes.

Cost Reduction Initiatives

- Introduction of subsidies on inputs in fertilizer production (See case study fertilizer manufacturing)
- Elimination of ZINWA water charges to farmers to encourage winter farming
- Preferential electricity charges for agriculture
- Deliberate strategy to increase yields through support schemes such as agricultural extension services and training of farmers.
- Availability of structured long term finance for re – capitalization and rehabilitation of irrigation infrastructure.
- Grain marketing Board to remain as buyer of last resort and allow market forces to operate efficiently.
- Re – establish Zimbabwe Commodity Exchange (ZIMACE)
- Government should improve the extension support services to improve yields on farms and livestock breeding and management.
- Government should set up team that will continuously investigate the integration of Zimbabwean agricultural sector with such agencies as the Bill Gates Foundation, European Development Fund (EDF), The Global Environment Facility (GEF), Alliance for Green Revolution in Africa (AGRA) and Food Agricultural Organization (FAO), NORAD, NEPAD and other agencies so as to benefit from their programs.
- The government should come up with a mechanism to deal with the emerging dualism of part time farmers. Conveniently overlooking the realities can only prolong the recovery of the sector with its negative effects on the general economy.

The government should whilst supporting the evolving capabilities of the new farmers towards improving productivity build a critical mass that safeguards the general interests of the economy. Capital, skills, technology should be re – grouped through public – private – participation through ARDA, and CSC and other initiatives. Some stakeholders consulted suggested that emerging farmers that were allocated farms that were part of large scale farming could be grouped to operate as one farm sharing resources and infrastructure. This should reduce the re – capitalization requirements and improve productivity on the farms.

It is doubtful that the new farmers can manage the risk of frequent weather changes and volatile international market prices. Attracting capital and skills is particularly important in view of the economic circumstances that the general economy needs to overcome. Contract farming seems to be a practice of convenience that is seasonal, financiers could be encouraged to take a long term view through joint ventures or formation of private companies which are equity funded. This should result in a more permanent and sustainable practice.

Zimbabwe should review The Agriculture Policy Framework which was launched in 1996 as part of vision 1995 – 2020. This should contextualize the policy and strategy based on existing realities.

ANNEX 7: LACK OF CHANGE

Zimbabwe has been saddled with the change problem since dollarization. Retailers have been offering consumers credit notes, tokens, bubble gums, sweets, ball point pens and other low denominated goods to settle small change. Certain products are sold at prices which are rounded up to a convenient possible level of change. Whilst this does not directly affect competitiveness it negatively affects pricing efficiency, mostly making goods more expensive than they should be. The practice as prevailing suppresses demand and skews distribution of household incomes. Whilst this has been lessened by South African coins in circulation, the problem however, remains largely not addressed.

The impact on the lack of change and its negative effect on efficient allocation of resources and its impact on capacity utilization should be understood as measured by the number of transactions per day countrywide multiplied by time. This represents a large number of transactions involving a lot of money which is being misallocated and distorts the pricing of goods and services. Normally firms cost their products accurately which should be encouraged.

The Bankers Association of Zimbabwe made a proposal in 2012 for the country to mint its own coins for change. According to the proposal, the coins were to be exchanged on a dollar per dollar basis; enabling people to redeem coins for notes should they accumulate large quantities of coins.

The idea of importing coins from the United States of America was abandoned after it proved that the exercise would be expensive and is not a viable option. According to the Bankers Association of Zimbabwe it is estimated that 1 400 tons of coins would have to be imported. Importing of United States bank notes is already costly affecting competitiveness as evidenced by high bank charges on cash withdrawal from banks. The cost of insuring and transporting cash from outside Zimbabwe is costly and the prevailing bank charges discourage banking.

In a modern economy coins are required for the purpose of efficient small value transactions. Banks do not get much benefit from it, but is an imperative service to the transacting public. The issuance of coins is only profitable to the issuing bank, the central bank. It is generally said that coins make 13% of a nation's currency, about 1.5 - 2% of Gross Domestic Product (GDP) and based on GDP of about 11 billion United States Dollars this should be about 200 million US dollars.

In the circumstance of Zimbabwe, there are options that can be adopted:

- Ascertain small denominators of the abandoned Zimbabwean Dollars held at the Reserve Bank of Zimbabwe and introduce the required amount at an exchange rate of US\$ 1 for Zim \$1. This is the cheaper route as the money is already held in the country and there are no costs to be incurred.
- Mint new coins
- Mint new coins and print new notes of lower values.

The last two options are costly and would be unnecessary expenses if there are sufficient quantities held at the Reserve Bank. The use of coins and notes held would bring a windfall to those who are holding onto the disused currency. The windfall which would be a stimulus would be of little significance but would help to ignite economic activity. The introduction of the local dollars would enhance the relevance of the Reserve Bank which is currently curtailed by undercapitalization. The adoption and implementation of corrective measures

recommended together with this recommendation would constitute a package of measures to stimulate the economy, redirect consumer spending to be more efficient, improve capacity utilization and contribute to reducing unit cost of products. The local dollars would give guarantee of a certain degree of trading in the economy that is not subjected to the inadequacies of other currencies.

Panama which is the largest dollarized economy and has been under this regime for over seventy years has its local dollars to facilitate the transacting of small value products. The key requirement is that the local dollars should be easily exchangeable to other currencies when need arise as when one has accumulated too many coins.

It is therefore recommended that the RBZ evaluates the amount of lower denominated coins and notes (US\$5 and below) that is held at the bank to be introduced into circulation.

ANNEX 8: PRACTICE IN DETERMINING NATIONAL EMPLOYMENT COUNCIL WAGES

The Labour Act provides for the formation of the Employment Councils (Part VIII), whose major role is to assist in the negotiation of acceptable Collective Bargaining Agreements (CBA) for an Industrial sector and also ensures that the CBA negotiated at that level is adhered to within the industry or sector it covers.

Section 25A of the same Act provides for the formation of the Works Council, which is a joint body made up of an equal number of representatives of the Workers Committee and of management. The Works Council's function is to focus on best possible use of resources, foster good industrial relations, promote common interest and promote participation by employees at the workplace/firm.

The Works Council is intended for internal communication to deal with matters specific to that company. It is not a forum for sector-wide issues.

Obviously, it is at Works Council that issues pertaining to a particular firm are well understood and articulated, unlike at Employment Council level. The current situation in the country is whereby the NEC determines salary levels for all firms in that particular sector and those firms who cannot afford the salary scales have to apply for exemption with the NEC Exemption Committee. The application can be successful or turned down.

The Employment Council is formed when a registered employers' organization and the registered trade union get together, agree on a constitution and apply to the Minister to have an employment council formed.

It is at employment council wage negotiations that, the Union uses the PDL as an argument point. The PDL is now being misconstrued to be a minimum wage reflector. In Zimbabwe the PDL is computed on the assumption of a family of 5 i.e, 2 working adults and 3 dependent children. This therefore means that what is misconstrued as the PDL determined minimum wage must be divided by two to have a realistic implication on both, the firm and individuals working.

However in recent observations, in wage determination the courts are also in sync with reality in adjudicating wage deadlocks as shown in the now famous Chamber of Mines Vs Mining Union judgment where the learned Judge cited inflation and the need for the firm's continuity in business than to allow a huge wage increase that will close down the enterprise.

Basically the PDL issue is clouding wage negotiation issues of importance. These are productivity and capacity utilization. These are determinants of the firm's ability to pay and need a thorough examination. These affect the firm's output and its competitiveness in the market place. Again these arguments come along with the need to educate employees from shop floor about factors affecting the firm's success, financial position, market dynamics, and its ability to pay wages. Above all a good level of honesty is also needed from employers in paying more when the firm does well and also employees taking the brunt when the firm performs badly.

All these issues cannot be addressed at employment council level but at firm level through the works council. It is at this level that the employees and management of a particular firm can negotiate a realistic wage and that should be binding on terms and conditions agreed at a works council. The Act should empower the Works Council and do away with employment councils. The Labour Ministry as has been the case before, will monitor the adherence to these workplace agreements and not at an extra cost to both the employer and employees. These parties are currently paying government taxes, employers organization dues, union dues and employment council dues.

Employment councils are not compatible with prevailing situation in the country.

Stakeholders view the structure of employment councils as being too broad. Large scale companies are grouped with small operators. For example the in the commercial sector, covering the retail sector, companies on the stock exchange, OK Stores, Edgars, TM Supermakets, and Truworths have to agree wages which bind a one employee

shop. In mining large scale mining CBAs bind a small scale miner. In the bakeries sector a small bakery is bound by the CBA as a small bakery. The classification as it stands now is broad and should be re- structured to reflect level of capital, sales, number of employees and other relevant criteria to define the size of a firm. It will be easier for firms of the same size to define affordable levels of pay.

ANNEX 9: LIST OF STAKEHOLDERS INTERVIEWED

	NAME	ORGANISATION & POSITION
1.	Executive Committee	Confederation of Zimbabwe Industries Harare
2.	Mr. K Chikonzo	Zimbabwe National Chamber of Commerce President
3.	Mrs Malaba	Delta Supply Chains Manager
4.	Mr T. Ndebele	Truworths Limited Chief Executive Officer
5.	Dr. R Dafana	Zimbabwe Fertilizer Company Managing Director
6.	Mr R. Gurira	Zimbabwe Fertilizer Company, Technical Services Manager
7.	Mr L. Zembe	
8.	Mrs C. Malaba	Delta Southern Region General Manager
9.	Mr. N. Ndudzo	Industrial Development Corporation General Manager & Group Chief Executive Officer
10.	Mr. P. Kuipa	Zimbabwe Farmers Union Chief Economist
11.	Mr J. Chigwende	Chemplex Financial Director
12.	Mr E. Ndlovu	National Income and Pricing Commission Chief Executive Officer
13.	Mr. J Musariri	Shipping and forwarding Agents Association of Zimbabwe Chief Executive Officer
14.	Mr. K Kaseke	Zimbabwe Tourism Authority Chief Executive Officer
15.		Zimbabwe Energy Regulatory Authority
16.	Mr. G. Mudimu	Zim ACP
17.	Mr Mbaiwa	Zimbabwe Investment Authority Chief Executive Officer
18.	Dr J. Kanyekanye	Allied Timbers holdings Limited Chief Executive Officer
20.	Mr. N. Chinogaramombe	Cold Storage Commission Chief Executive Officer
21.	Executive Committee	Zimbabwe National Chamber of Commerce Bulawayo
22.	Mr L. Robby	Transport Operators Association Chief Executive Officer
23.	Mr Chiradza , Mr Kuzvinzwa and Mr Mapfeka	Zimbabwe Revenue Authority Commissioners for Domestic Taxes and Customs, and O Manager
24.	Executive Committee	Confederation of Zimbabwe Industries Bulawayo
25.	Mr S. Abel and Mr C. Mphambela	Bankers Association of Zimbabwe
26.	Mr. I. Sheasby	Pretoria Portland Cement Zimbabwe Finance Director
27.	Mr J. Murehwa	Sable Chemicals Limited Chief Executive Officer
28.	Mr. T. A, Mashingaidze	ZimPhos General Manager
29.	Mr Rundogo	Windmill
30.	Mr. Sabure and Mr Matiza	Reserve Bank of Zimbabwe
31.	Ms H. Mutsekwa, Mr P Chaibva, Ms R. Panevanhu, and Mr Munyaradzi	Postal and Telecommunications Regulatory Authority of Zimbabwe , Department and Tariffs
32.	Mr Seedwell Hove	World Bank Economist
33.	Vimbai Mushongera	Zimbabwe Congress of Trade Unions_Parliamentary Affairs And Advocacy Officer
34.	Dr G Kanyenze	Labour and Economic Development Research Institute f Zimbabwe (LEDRIZ)
35.	Mr L. A. Mukwada	National Railways of Zimbabwe Director (Technical Services)and Acting General Man
37.	T Ngwenya	Zimbabwe Energy Regulatory Authority
38.	Mr. Mandiziba	Zimbabwe National Water Authority, Assistant to the Chief Executive Officer
39.	Mr K. Kaseke	Zimbabwe Tourism Authority