OVERVIEW OF TRENDS AND DETERMINANTS OF ZIMBABWE'S FOOD SECURITY SITUATION AND OUTLOOK FOR MARKETING YEAR 2006/7

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1 INTRODUCTION

1.1 Background

Zimbabwe is presently experiencing a complex socioeconomic crisis, which continues to pose a serious threat to national food security situation. Despite good rains in 2005/6 agricultural season, food security of urban and rural population remains precarious and is set to worsen throughout the next eighteen months driven by deteriorating macroeconomic conditions. Throughout the 1980s and 1990s the incidence of national food insecurity crisis coincided with seasonal climatic episodes of severe drought-induced crop failure such as 1982 and 1992 droughts. Since 2000, Zimbabwe's food security situation has become more precarious and increasingly driven by a cocktail of multiple factors including natural factors as well as political economic factors of domestic economic stagnation, food and agricultural policy failures and the quality of international humanitarian response.

This paper explores Zimbabwe's situation analysis for the marketing year 2006/07, food security challenges, and recent trends from a structural political economic perspective. This represent an extension rather than a departure from the conventional approaches to food security assessment which puts primary emphasis on production side factors of seasonal climatic risk as prime determinants of food security situations when mapping the vulnerable populations. Thus a very powerful analytical framework for mapping and tracking vulnerable populations emerges when the conventional supply side factors centered in the rural areas are combined with demand side factors driven primarily by macroeconomic circumstances and food markets or policies centered in the purely exchange economies of urban areas. Such a framework will reflect market interconnectedness and thus degree of integration and cross elasticity of food security situation in rural population to urban food security circumstances and vice versa. Indeed the dynamic driver shifting rural agricultural population into food insecurity may not be size of agricultural harvests nor initial earnings potential but voluntary (or forced) reverse urban-rural migration of dependents presently as urban economic hardships become unbearable under growing macroeconomic and social instability. Similarly seasonal climate my trigger the prospects for food insecurity but timely support from government or remittance flows from thriving urban population may neutralize the food security threat. Thus with modern applications of scientific knowledge of seasonal climatic forecast, the art of preparing and managing natural disasters including droughts has improved greatly that close association of such events with incidence of food insecurity in Southern Africa is increasingly merely another manifestation of national policy failure.

Informed by an integrated analytical perspective and analysis of historical food security trends over the past twenty five years, the paper submits a strong argument that macroeconomic instability confounding domestic food and agricultural market policy failures are the important underlining causes of Zimbabwe's food security successes and failures. In the same vein, thus anticipated short-term macroeconomic developments and prospects for agricultural and food market policy reforms will be the primary drivers of dynamic changes in geographic and economic class pattern and intensity of household vulnerability to food insecurity in the next six to eighteen months.. Monitoring these macro trends and projecting their impact on primary impact variables and regions is therefore critical for an ongoing

continuous monitoring and evaluation of food security situation under Zimbabwe's fluid and rapidly changing political economic environment in which food secure populations may become at risk of famine over night. The paper is organized into five sections beginning the introduction, which is followed by a conceptual framework. Section III presents a historical analysis of food security trends in relationship with macroeconomic and agricultural policy developments. This is followed in section IV by an empirical quantitative and qualitative investigation of the relationship between food security variables and macroeconomic variables. Section V undertakes a scenario analysis comparing the possible worst case versus best case macroeconomic and food security policy scenario for the 2006/07 marketing year.

1.2 HISTORICAL BACKGROUND – FOOD SECURITY PERFORMANCE AND MACROECONOMIC POLICY DEVELOIPMENTS FROM 1980-1999

Over the past twenty-five years of independence, Zimbabwe government has struggled to contain macroeconomic imbalances that have continued to threaten domestic economic stability and sustainability of the country's dramatic agricultural development and food security gains of the 1980s. Agricultural and food security successes of the 1980s, which established Zimbabwe as the breadbasket of Southern Africa and one of only a few African states to sustain positive per capita growth in food and agricultural production during its first decade of independence came at tremendous fiscal expense. High levels of fiscal imbalance during the 1980s were only kept at bay from causing serious macroeconomic instability through heavy inflows of grants and concession loans from the international development community. The short-term impact of the fiscal investment was agricultural productivity growth driven primarily by spectacular returns to government investments in the indigenous peasant agricultural sector. These public investments included expansion of public agricultural extension and market support services previously reserved for white farmers to benefit the entire indigenous farming population. Consequently, the peasant sector enjoyed unprecedented access to seasonal financing to acquire high yielding agricultural technologies such as hybrid seed varieties and fertilizers, and to state run agricultural commodity marketing institutions forced to open trading branches in the remote areas. The result was massive gains in agricultural productivity and food security as yield in the communal areas rose from under one ton to 2.5 tons per hectare by mid 1980s (Rukuni and Eicher 1989). An extravagant combination of agricultural production support policies and cheap consumer food pricing policy, the government firmly established Zimbabwe as the granary for Southern Africa while ensuring food security of urban and rural populations.

By mid 1980s, domestic fiscal imbalance had become a major concern among domestic and foreign stakeholders. The international community, exasperated by government overspending, had already started cutting down development finance below their pledged levels of support in a bid to pressurize government to contain its fiscal deficit within set limits. With growing militant reluctance to scale down its socialist agenda of providing universal free access to education and health care services plus a costly food security program of providing untargeted food subsidies and agricultural production support, financing of the domestic budget became increasingly counter productive and costly to the economy. To local industry, deficit spending increasingly funded through domestic borrowing in a tight monetary situation effectively crowded out productive private sector investments and sending negative signals of a pending economic crisis to foreign investors. Domestic economy and GDP performance began collapse further reducing government tax

revenue base reducing economic growth prospects. With an unstable and diminishing tax revenue base, government subsidy payment to agriculture had become erratic and resulting in costly delays in essential services – granting agricultural input loans, timely collection of produce from farms and payment of farmers – culminating in agricultural production and marketing efficiency losses. With deficit financed big government, prospects for industrial growth and formal employment for youths graduating from the country's free education system diminished producing a frustrated unemployed population of food insecure youths. Employed and union-organized civil servants and industrial workers burdened with increased taxes to finance government over-spending became militant against government spending policies threatening their employment security and urban livelihood.

The united threat from domestic stakeholders and combined threat by IMF/World Bank to withdraw all their remaining financial support unless government addresses the growing domestic macroeconomic imbalances ultimately led government to adopt IMF/WB styled economic structural adjustment program in 1991. Critics of Zimbabwe structural adjustment programs often blame the WB/IMF austerity measures for worsening poverty and food insecurity informed by simplistic comparison of the food security situation in 1980s versus 1990s decades before and after ESAP. Such an approach favored by many critics entirely ignores the imminent economic collapse and food insecurity outcome that would have resulted had government not implemented ESAP to correct macroeconomic imbalances. Agricultural market subsidies credited for improving food security of the rural and urban poor in the 1980s were part of the fiscal deficit spending which government found it difficult to sustain. Market liberalization worsened urban food security as food prices increased to market levels and unemployment rate soared as industrial recovery was limited by rising cost of inputs and scarcity of capital financing in the face of continued deficit financing. Failure of free market system to provide agricultural finance to rural farmers at a time when large scale commercial farmers where shifting to out of food crops into export crops caused per capita decline in food production and poverty to increase in rural areas. Elimination of costly government operations of financing purchase and marketing of national agricultural produce and food security stocks saved government considerable resource which unfortunately only empowered other areas of government spending rather than an overall reduction in government spending necessary for creating the enabling macroeconomic balance.

National food security situation in post ESAP period to the present was compromised by the failure of the national Grain Marketing Board to secure adequate stocks of grain from domestic and external markets in order to perform its food market price stabilization function. The absence of an effective stabilization failure has left consumers exposed to speculative spatial and temporal margins in the fragmented domestic maize marketing system. Efforts by GMB to improve its standing in the food grain market through provision of contract farming to lock-in targeted volumes for food security have not been successful due to a number of institutional factors. Without the stabilizing presence of GMB in the rural areas, rural communities have been left exposed to private grain market failures that have reversed food security gains especially among the rural poor who lack the means to diversify towards cash crops. With time rural population become sophisticated as producers organizing themselves for better bargaining with middlemen and local bigger usually commercial farmers to receive better terms of trade commensurate with urban grain market conditions. Those with the capacity means have diversified to combine maize production with more lucrative crops such as soybeans and cotton and cow peas offering them better income and food security possibilities under the free liberalized agricultural marketing system. Traders had also moved to establish seasonal periodic market outposts in rural areas increasing local competition.

These positive developments where put under threat after land reform program and resultant macroeconomic and agricultural policy interventions which send a shock wave throughout the economy and increased transaction cost of doing business in agriculture.

2 Conceptual Framework: Food Security Dimensions and Relationship with Macroeconomic Determinants

The food security situation presented in Figure 2.1 shows the relationship among food security dimensions, determinants and drivers. Food security has three dimensions: availability, access and utilization. Food availability is determined by the level of food supplies, composed of subsistence production and market supplies stemming from domestic production, food stocks and food imports. Access to food is the result of the ability to express food needs (beyond subsistence production) as effective demand. Utilization is the ability to convert the food into usable units that the body needs for a healthy living. FAO (1997).

The food security situation in Zimbabwe can be best described by the food security equation which translates to dimensions of food availability, accessibility and utilization. The three food security dimensions have determinants which are functions of quantity supplied on the availability side and quantity demanded on the accessibility side and socio economic factors on the utilization side. Quantity supplied is a function of aggregate cereal output, GMB closing stocks, cereal imports and food aid whilst on the other hand; quantity demanded is a function of cost of food basket, real incomes of workers. The overall drivers for the determinants are macro variable such as macro economic factors, market based factors, social political and climatic factors.

In general, food security can be defined as a situation where both food supply and demand are sufficient to cover food requirements on a continuous and stable basis. This definition applies, in principle to individual household as well as to aggregate national food security. Food security is generally driven by the following factors macro-economic factors, political factors, climatic, market and social factors as shown on the figure below. Effects of some of the drivers on the food security situation in Zimbabwe and possible implications on the outlook for the 2006/07 season will be discussed in later section of this paper.

Food insecurity prevails if at anytime (occasionally, repeatedly, or permanently), either the volume of the food supply, or of food demand, or of both fall short of requirements. A mismatch between demand and supply of food often leads to costly importation of grain to cover for the shortages. To avoid importation of food, countries have to ensure that they build domestic shocks which they will use as a buffer in case the season is not favorable. Food imports more often come at a huge cost to the fiscus as they more often are not budgeted for. They also put pressure on demand for foreign exchange which is often in short supply in nascent agriculture-dependent economies such as Zimbabwe.

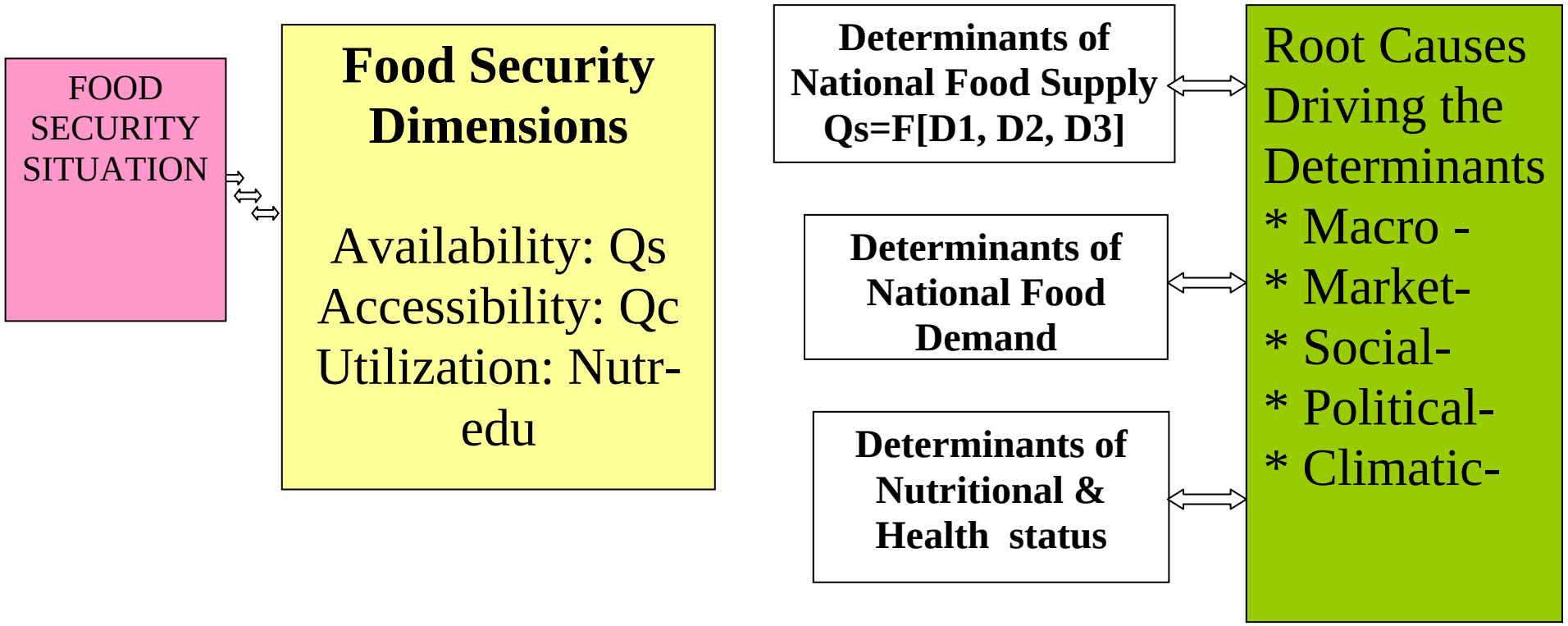


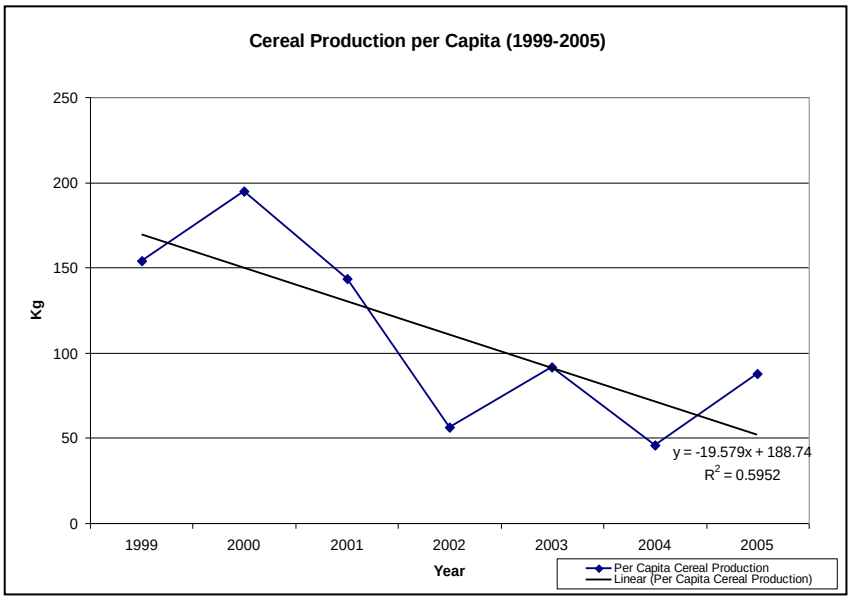
Figure 2.1: Relationship among Food Security Dimensions, Determinants And Drivers: A Conceptual Framework

3 Characterization of the Trends of the Food Security Situation in Zimbabwe

3.0 Trends in Cereal production in Zimbabwe

Figure 3.1 shows the cereal production per capita. It is an aggregation of Sorghum, Maize, and Wheat output. Cereal production per capita shows the amount of cereals that are available to every person in the country from own production.

Figure 3.1 Trends in Cereal production Per Capita



Source: Central Statistics Office (2006)

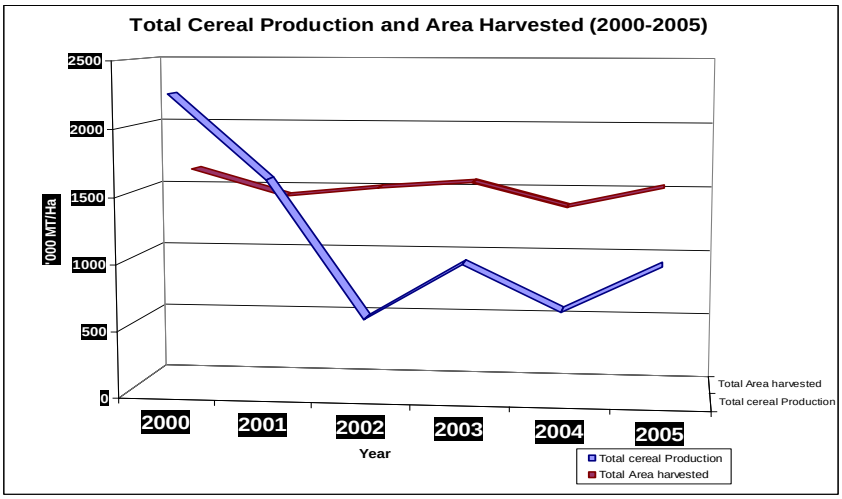
The above figure shows that there has been a persistent decline of per capita cereal production over the last 5-6 years. This decline is largely attributed to a fall in the productivity levels by farmers due to a combination of poor rainfall, shortages of critical inputs such as fuel and top dressing fertilizer. Low up-take of farms by the new farmers and uncertainty over the new ownership structure after land reform has not helped matters either. The graph shows that per

capita production of cereals has consistently been on a decline over the past 5 years. From a high of almost 200kg per person per year in the year 2000, per capita production had plummeted to just under 50kg per person by 2004. Thus food self sufficiency has been on the decline over the past half a decade.

Figure 3.2 shows part of the explanation for the decline in per capita cereal production. The figure shows production levels for cereals has been declining whilst the area under cultivation has remained relatively constant around 1, 5 million hectares over the same period. This implies that the major driver of this fall in per capita production has been the reduction in the productivity by farmers. Also contributing to this general fall in per capita production is the ever increasing costs of production coupled with unavailability of essential inputs such as seed, fertilizers and chemicals which culminated in production being non-optimal.

Decline in per capita means that food access and hence food security was compromised as the country could not meet its own cereal needs. A lag associated with importation of grain, often meant the country had to go without some of the cereals for some months.

Figure 3.2 Relationship between area harvested and cereal production



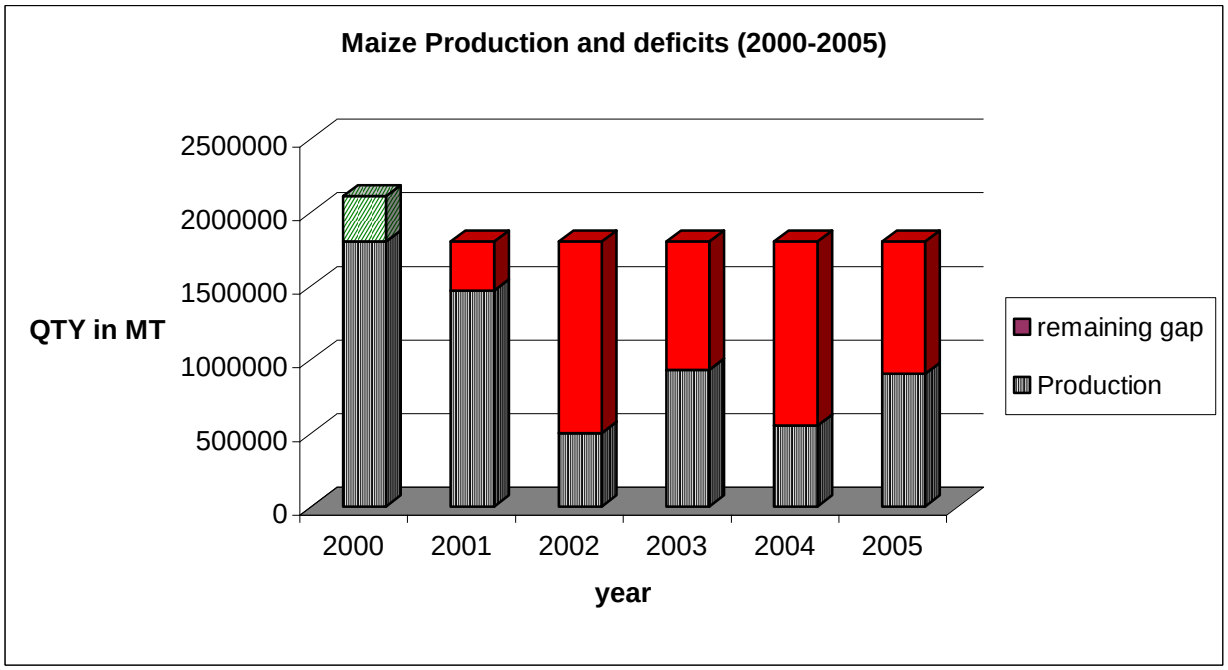
Source: Ministry of Agriculture and Rural Development (2006)

Given the marked decline in productivity as shown on Figure 3.2, the country thus has had to resort to food aid and more expensive importation of grain to meet food needs. The trend shown above implies that per capita food self sufficiency will continue to decline in the 2006/7 marketing year especially if inputs supply constraints are not addressed.

3.1 Relationship between Maize Production and Consumption

The analysis presented above does not put into perspective the demand side of food which is critical to determine the nation's level of food security. Figure 3.3 below shows maize production and shortfalls in cereal requirements from the year 2000 to 2005. In this period, it is only in agricultural season 1999/2000 that maize production surpassed the annual domestic requirements of 1.8 million metric tones.

Figure 3.3 Demand and Supply trends for maize (2000-2005)



Source: Central Statistics Office (2006)

Between the years 2001 and 2005, domestic supply fell short of national requirements and this deficit was attributed to *inter alia* the ever increasing costs of production and the fast tack land reform. The gap shown in the figure above shows a decline in food self sufficiency in Zimbabwe. In 2002, maize production level was at its lowest, with the deficit running to well over 1,3 million metric tones. Low production levels in this year as well as in the subsequent seasons were mainly attributed to devastating drought among other things. The deficits led to the government of Zimbabwe declaring a state of disaster thus triggering maize imports through the

state agent, GMB and other non-governmental organizations. However the need to import maize and other cereal requirements has been difficult on the part of government due to lack of foreign currency and poor relationship with donor countries. Table 3.1 shows the effects of changes in some of the food security drivers on some food security outcomes

Table 3.1 Summary of production and market trends on food security

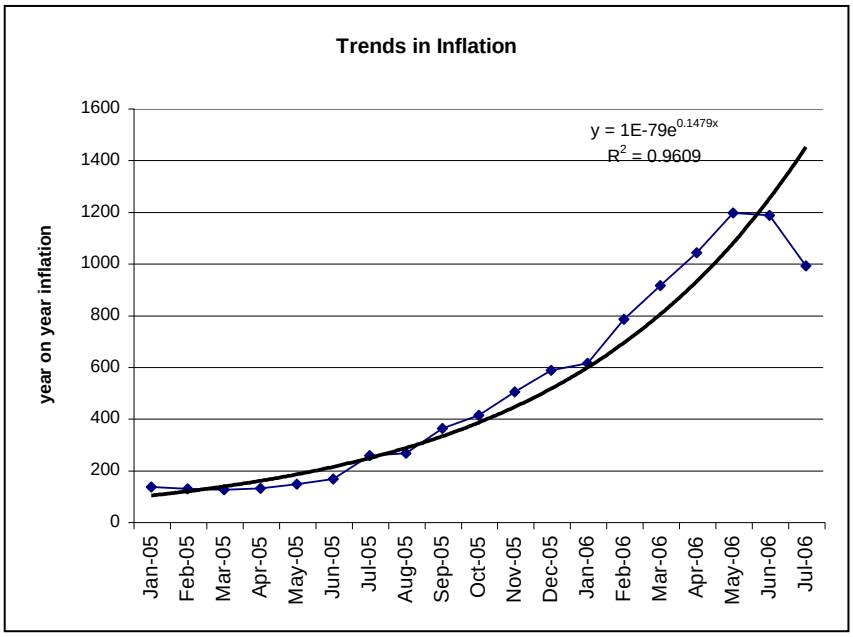
Determinants	**Trends over the past 5years**	**Impact of Determinant on**		
		Availability	**Accessibility**	**Utilization**
Production	Decrease	Decrease	Decrease	Decrease
Yield	Decrease	Decrease	Decrease	Decrease
Area harvested	Constant	Constant	Constant	Constant
Production per Capita	Decrease	Decrease	Decrease	Decrease

3.2 Macro Determinants of Production and Consumption

3.2.1 Trends in inflation and the Exchange rate

Runaway inflation is a major factor underpinning poor macro-economic performance for the past 7 years. Coupled with reduced income levels and income generating opportunities, high inflation is making more and more of the urban and rural population food insecure. Figure 3.4 below shows the month on month trends in inflation since January 2005.

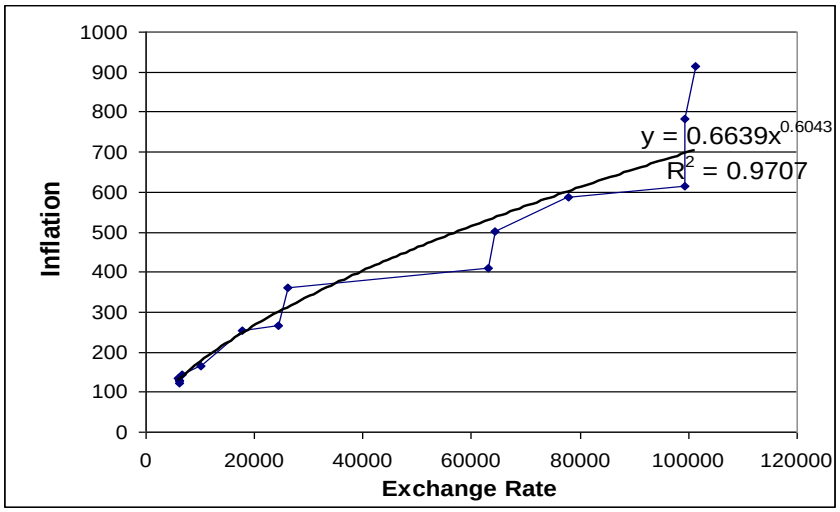
Figure 3.4: Trends in Inflation January 2005-May 2006



Source: Reserve Bank of Zimbabwe

From 133.5 percent in January 2005, inflation has vaulted to almost 1200 percent by May 2006. June and July 2006 so a slight decline in inflation to just under 1,000 percent. Whilst this decline in inflation is welcome, it does not signal a change in the fortunes for the country. In the shot to medium term it appears the trend will continue as inflation pressures due to increases in fuel and continuous depreciation of the local currency against the US dollar still exist in the economy. A large proportion of the inflation has been attributed to food inflation due to poor performance of the agriculture sector. However due to the fairly better season this year, food inflation may have a lesser impact on inflation from mid year going forward. Figure 3.4 below shows a strong correlation between inflation and exchange rate. As the Zimbabwe dollar gets devalued further, the more inflation will be on the rise, creating an even worse case scenario for the food security situation for the 2006/07 marketing year.

Figure 3.5: Trends in Inflation and the Exchange Rate



Source: Reserve Bank of Zimbabwe (2006)

Since inflation eats away the buying power of households, this phenomenon will continue to have a negative impact on household food security for a majority of the Zimbabwean population, who rely on the market to meet at least part of their food requirements. On another level, the high rates of inflation coupled with relatively low interest rates are undermining households' ability to save and invest, forcing them to spend their limited income on basic goods and services. The continuous decline in the value of the local currency reflects a movement from the fixed exchange rate system to the more market driven auction system then to the Tradable Foreign Currency Balance System (TFCBS). Adjustment of the latter system at the beginning of 2006 to a volume based system where the exchange rate would only move by at most 2 per cent per trading day resulted in the stagnation of the rate at around ZW$100,000. The monetary policy announced in July 2006 saw a further devaluation of the local currency to ZW$250,000 against the US dollar. This is less than 50% of the going parallel market rate of ZW$600,000 per US dollar.

3.2.2 Implications of Inflation on Economic Agents and Food Security

An unprecedented increase in inflation over the past half a decade has led to a lot of uncertainty and speculative behavior in the market. To this end, it is the major cause of poor performance of the economy and thus has been aptly termed the countries number one enemy by the Reserve Bank of Zimbabwe. Inflation generally has different impacts on different economic agents but on

the whole, it is an undesirable phenomenon. This section divides economic agents into the following groups; consumers, producers, and government.

i. Producers

A rise in the inflation rate immediately leads to increases in the cost of production such as transport, fertilizers and labor. Inflation directly causes interest rates to increase hence the cost of borrowing is also augmented. Also closely related to this phenomenon is the exchange rate which also adjusts upwards with a rise in inflation thus usurping the power of the local currency. This leads to the soaring of imported factors of production such as chemicals and fuels. All these factors crowd out the profit margins realized by producers. Since grain crops such as maize and wheat are controlled, producers will most likely shift out of cereal production and move to more lucrative crops such as tobacco. This consequently will lead to a reduction in the volume of cereals that are delivered to the GMB. Low deliveries to GMB will exacerbate the problem of grain shortages as the gap between supply and demand for grain widens. The end result is that the country will resort to importing grain whose landed prices is often much higher than the government set price.

ii. Consumers

High rate of inflation means that consumers are faced with high retail prices of cereal products. This erodes their purchasing power and hence the marginal propensity to consume cereal products. On the whole, consumer access and utilization of cereal products will be affected. The impact of inflation may indirectly come from a reduction in cereal output due to incessant increases in input prices in an environment where the output prices are controlled as is the case with maize. Shortages due to reduced self sufficiency in cereals will lead to increases in prices of cereal based food commodities. Thus the food access component of food security is compromised as effective demand for the cereals would have been reduced.

iii. Government

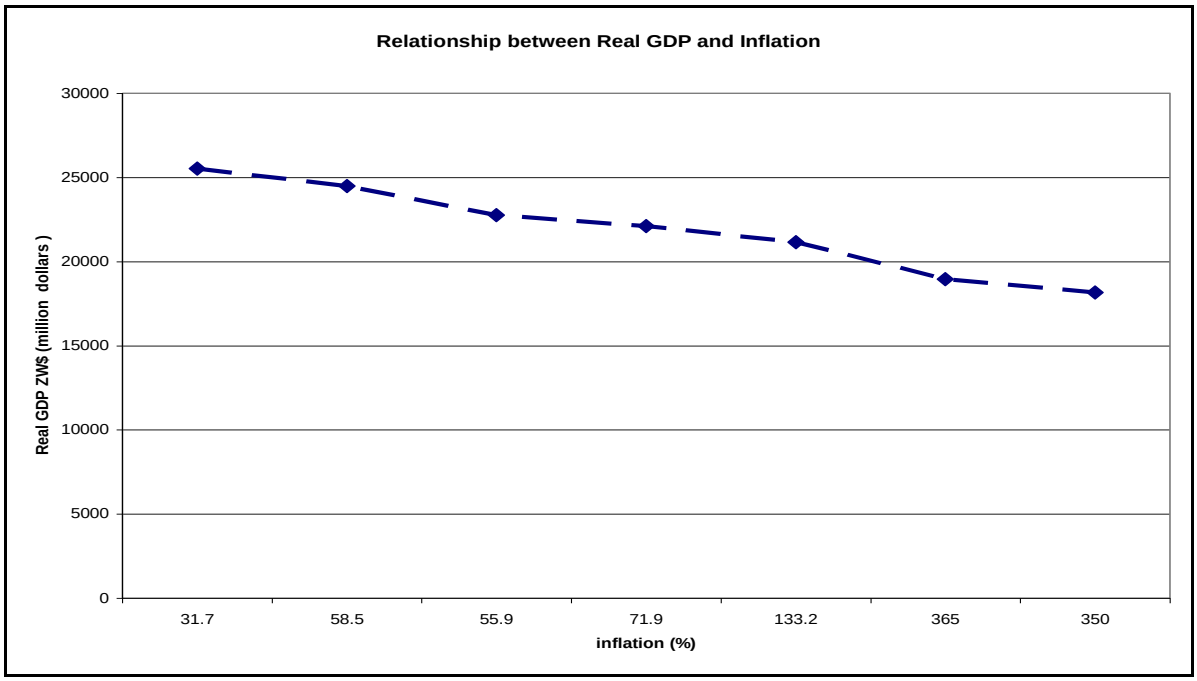
High inflation is often associated with high interest rates. High interest rates increases the interest component of the government debt and this may lead to crowding out of other borrowers (for instance farmers) in the market as the government goes into to the market to borrow money to pay off loans. Crowding out of producers such as farmers reduces their capacity to produce food crops such as maize and wheat. Huge interest payments by the government in times of cereal deficits reduce the government's capacity to import grain. Thus food availability is likely to be reduced for the 2006/07 marketing season if the season is not favorable and challenges in the input markets not addressed.

3.2.3 Trends in relationship between Real GDP and Inflation

Inflation which is generally regarded as a negative phenomenon has retrogressive effects on the economy. This section looks at the relationship between inflation and real Gross Domestic Product (GDP). GDP is the total market value of final goods and services produced within the borders of a country, even if produced by foreigners in a given period of time. Nominal GDP measures national out put at current prices whilst real GDP measures it at constant prices.

Figure 3.6 shows that there has been a noticeable decline in national output with increases in inflation. This graphic shows the deleterious effects of inflation on the most recognizable measure of the well being a country, GDP. The graph shows that GDP declined by about a quarter between 1998 and 2004 in real terms.

Figure 3.6: Relationship between Inflation and Real GDP (1998- 2004)



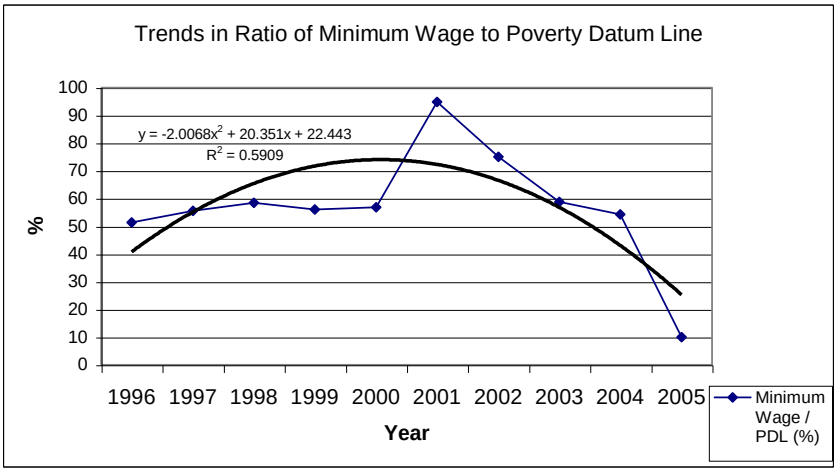
Source: IMF and Robertson Economic Consultancy Services (2006)

Part of the decline in national output is attributable to a decline in agricultural output due continuous increases in inputs and the high interest rates currently obtaining in Zimbabwe. Underutilization of farms by the 'new farmers' is not helping matters either. The observed trends imply a worse case scenario to the decline in food security for the 2006/07 marketing year

3.2.3 Trends in Minimum wage rate and poverty datum line

Figure 3.7 shows that the minimum wage has consistently been below the poverty datum line. The poverty datum line is the minimum cash requirements for a family of six to just afford the basic requirements such as food, rental school fees.

Figure 3.7: Trends in Minimum wage as a percentage of PDL



Source: Robertson Economic Consultancy services (2006)

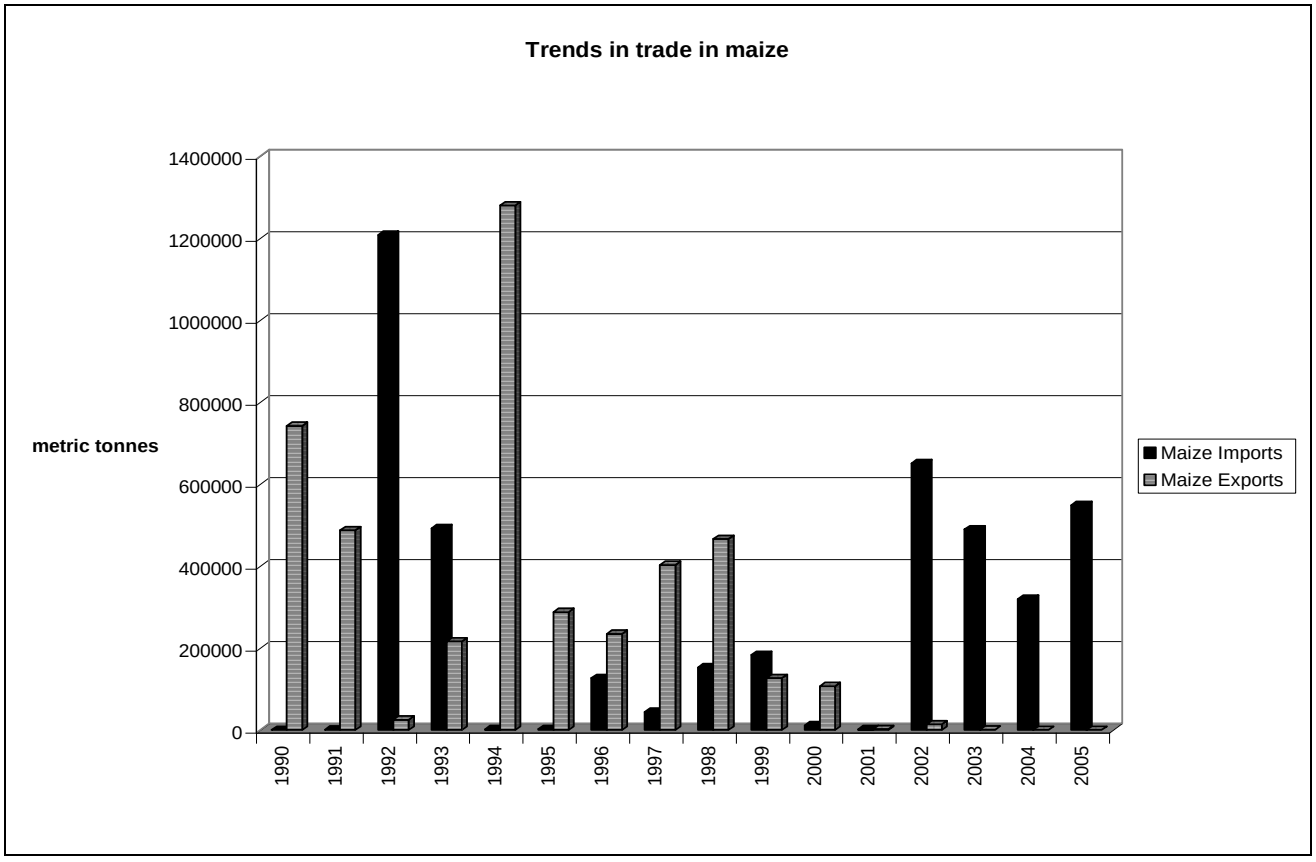
For most of the time, the minimum wage was less than 60% of the poverty datum line. From 2001, there has been a sharp decline of the ratio of minimum wage to PDL from just over 90% to 10%. Thus, increasingly a large proportion of the working population is being driven to depths of abject poverty due to the decline in real income. The decline in income makes it difficult for these low income earners to support relatives back in the rural areas who more often are dependant on remittances to finance purchase agricultural inputs and buy food. Inadequate financing of agricultural activities will consequently result in these households being increasingly food insecure as they neither have own stock of food nor money to buy the food from the market.

3.3 Trends in Import and Export of Cereals

3.3.1 Trends in Trade in Maize

Persistent drought and poor performance of the agriculture sector due to a myriad of challenges such as shortages of fuel, fertilizer and underutilization of land by the newly resettled farmers has resulted in the country resorting to imports to meet cereal deficits in Zimbabwe. At the same time exports have also drastically dwindled due to reduced local production as shown on Figure 3.7 below.

Figure 3.7: Trends in Trade in Maize



Source: Ministry of Agriculture and Rural Resettlement (2006)

For the greater part of the 1990s, Zimbabwe exported more than 200,000 tonnes of maize except for the year 1992 when output was reduced by drought. In 1995, good rains and huge carry over stocks resulted in the country exporting as much as 1,200,000 tonnes of maize.

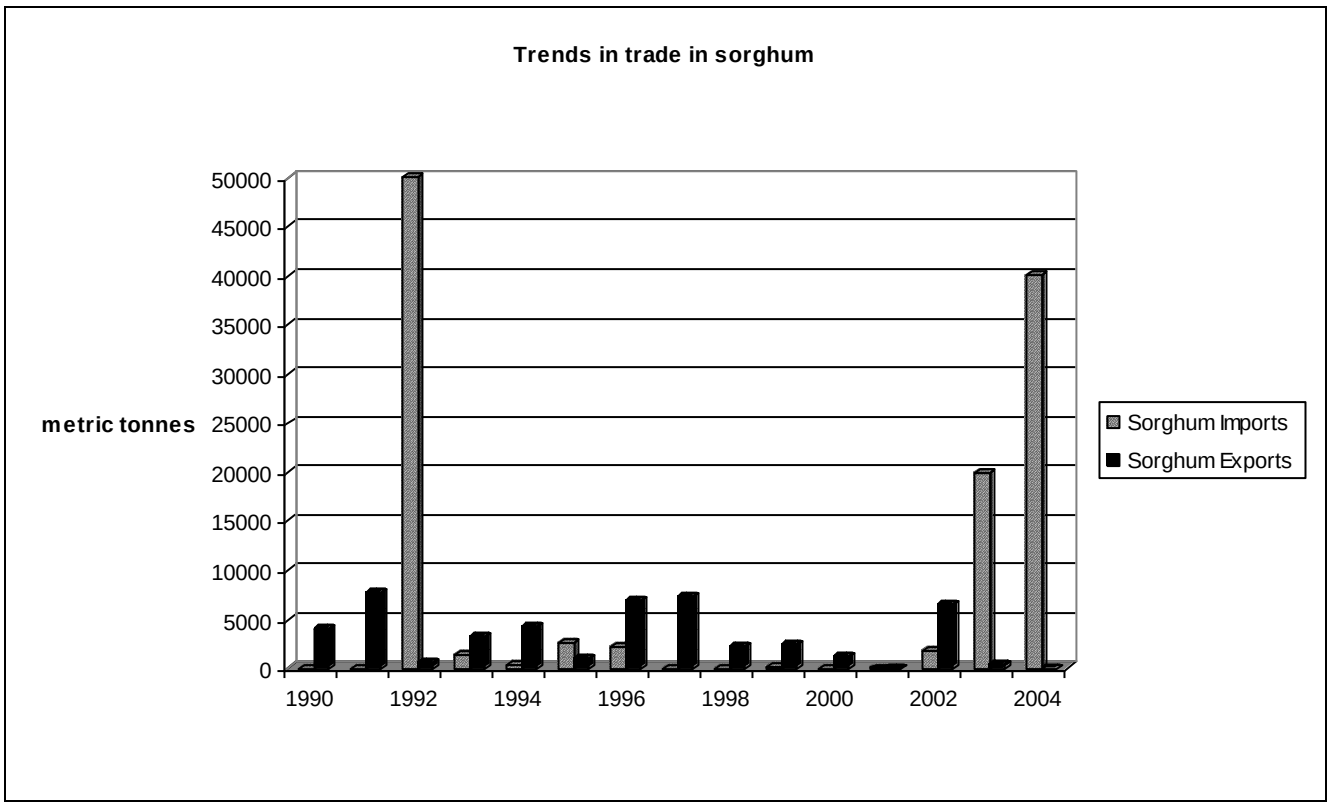
The situation has however not been the same in the post land reform era. A combination of droughts, farm disruptions and shortages of critical inputs such as fuel and fertilizer has led to decline of exports to zero by the year 2004 as shown on Figure 3.7. During the same period, maize was classified as a controlled product and state agent, GMB is now the sole buyer of maize in the market.

Between 1990 and 2001, Zimbabwe generally imported less than 200,000 tonnes of maize save for 1992 when drought led to massive crop failure. In that year, as much as 1,200,000 tonnes of maize was imported. A decline in output in 2000/01 season led to an increase in imports to just over 600,000, the highest imports since the 1992 drought. From then on, there was a noticeable decline in imports to around 300,000 tonnes in 2004. The country would have imported more maize where it not for the crippling foreign currency shortages. Importation of grain is currently done by GMB and a number of Non Governmental Organizations such World Food Program that were given permits to import grain by the Ministry of Agriculture and Rural development.

3.3.2 Trends in trade in sorghum

Sorghum generally is not a major cereal in Zimbabwe as evidenced by the low production and trade figures. However in drought prone regions of the country such as Matebeland North and South, and parts of Midlands, it is critical and a major component of the farm production system. It is suitable for the dry conditions that obtain those regions of the country.

Figure 3.8 Trends in trade in sorghum



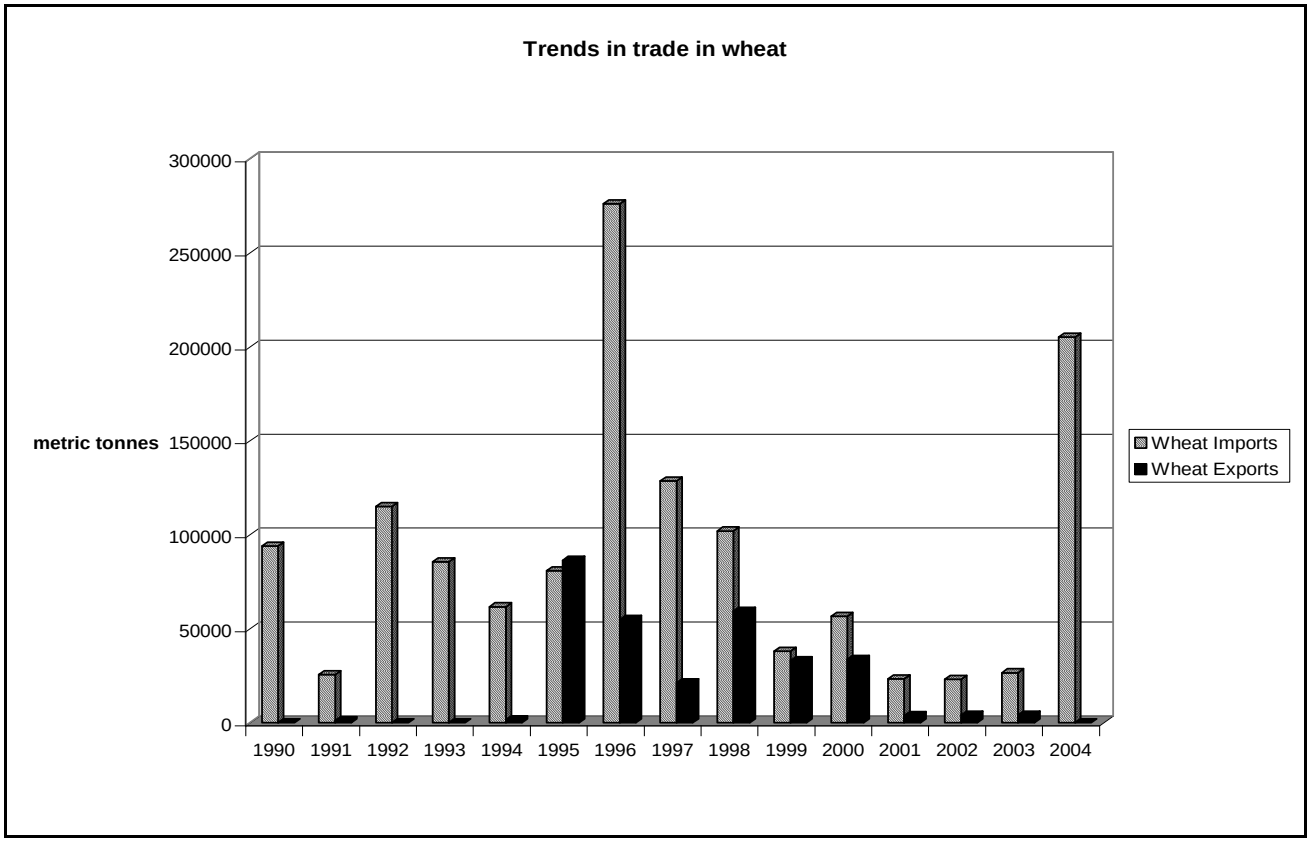
Source: Ministry of Agriculture and Rural Development

Quantities of sorghum imported are general very small when compared to other cereals. The highest amount of wheat imported was about 50,000 tonnes recorded in 1992/93. After that, imports were hovering below 1,000 tonnes save for the years 2003 and 2004 where as much as 20,000 and 40,000 tonnes were imported respectively. Exports have been fairly minimal. The highest recorded was just over 7,500 tonnes in 1992. Exports of just over 5,000 tonnes were recorded in 1996, 1997 and 2002 as shown on Figure 3.8. It is highly likely that the country will need resources to import sorghum in the 2006/7 marketing season because of the challenges related to input procurement.

3.3.3 Trends in Trade in Wheat

The figure below shows that Zimbabwe imports wheat every year to supplement local production. Imports are mainly necessary because Zimbabwe does produce soft wheat which is critical in the bakery industry. More often than not hard wheat that is produced in Zimbabwe does not meet the demand from the local market. Figure 3.9 below shows that Zimbabwe is a net importer of wheat. Over the years, wheat imports have shown great variability with largest amount of imports of 275,000 tonnes in 1996 and the lowest of just over 23,000 tonnes in 2001.

Figure 3.9 Trends in Import and Export of Wheat



Source: Ministry of Agriculture and Rural Development

Peak exports were recorded between 1996 and 1999. This was the period when rainfall was generally favourable and most of the major inputs such as fertilizer were easily available in the market. From the year 2000 onwards, exports of wheat and sorghum drastically dwindled. By 2004 exports had fallen to zero. A persistent shortage of critical inputs is likely to hamper production in the 2006/07 season. Persistent load shedding by ZESA is not helping the situation either. Going forward, exports will most likely be suppressed because of challenges in the input market and price controls. Thus, the country needs to mobilize resources to import wheat because the above mentioned challenges are forecast to continue.

4 Correlation Analysis of Relationship between Food Security Outcomes and key Determinants/Drivers

4.0 Introduction

This section takes a critical look at relationships between food security outcomes and key determinants/drivers. The macro economic determinants of food security that are presented in the tables below are rate of inflation, minimum wages and foreign exchange. Admittedly, there are other macro economic variables that have an impact on food security but a few have been included to illustrate the potential implications of the macro economy on key food security outcomes. However expected *a priori* correlation between some variables that have been excluded in this section will be presented in the annex. Spearman correlation coefficients are used to assess the relationship between food security outcomes and its key drivers/determinants.

4.1 Macroeconomic Determinants of Trends in Food Security Components

4.1.1 Macroeconomic Determinants of Food Availability

Table 4.1 below shows the relationship between some selected macro economic variables and some food security determinants. There is a negative correlation between inflation and aggregate cereal production and GMB closing stocks.

Table 4.1 Correlation of macro economic variables and food availability parameters

	Rate of Inflation	***Average minimum wage***	***Real Wages***	***Foreign Exchange Rate***
Aggregate Cereal Production	-0.6*	-0.625*	-2.83	-4.7
GMB Closing Stocks	-4.16	-1.63	1.94	-0.19
Government Cereal food Imports	0.67*	-0.551	-0.215	0.672

* Significant at 10%

However, inflation is positively correlated with government cereal food imports. When looked at in isolation the table shows that a one unit increase in inflation is associated the a 0.6 decline in aggregate cereal production, 4.16 unit decline in GMB closing stocks and a 0.67 unit increase in cereal imports. This is consistent with the *a priori* expectations (see Annex). In general this shows that inflation has a negative impact on national food availability and hence national food security.

Average minimum wage is negatively correlated with aggregate cereal production, GMB closing stocks and government closing stocks. The trend is the same for real wages except for GMB closing stocks where the correlation coefficient is positive. The table also shows that there is a strong negative correlation between exchange rate and aggregate cereal production. A one unit increase in foreign exchange rate is associated with a 4.7 unit decline in aggregate cereal output. This to a large extent explains the decline in GDP over the past half a decade. Expectedly, GMB stocks are also negatively correlatively correlated with foreign exchange rate since GMB stocks to a large extent are a function of aggregate cereal output. On the other hand, foreign exchange rate is positively correlated with government cereal imports. This means that a unit depreciation in the local currency is associated with a 0.67 increase in cereal imports.

The significant variables are correlation of inflation rate with aggregate cereal production and government cereal imports. In addition, average minimum wage and aggregate cereal output correlation is also significant. This implies that if inflation persists on the upward trend, aggregate cereal production is expected to decrease whilst at the same time cereal imports would increase in the 2006/07 marketing season putting pressure on the demand for the scarce foreign currency.

4.1.2 Macroeconomic Determinants of Accessibility and Utilization

Food access is an important component of food security. Like all the other components of food security it is also affected by changes in the macro economic environment. Food access addresses the demand side of the food market. In this analysis the CPI for food is taken as a proxy for cost of food. Real wage represents the income of the consumers. To a large extent it determines household's effective demand for food. Thus, income affects households' ability to gain access to market supplies for food. Table 4.2 shows the relationships between some key macro economic variables and some selected food access parameters. A priori expectations are presented in the *Annex*

Table 4.2: Relationship between Macroeconomic Variables and Food Access Parameters

	Inflation Rate	***Average minimum wage (all sectors)***	***Real wage***	***Foreign Exchange Rate***
CPI food	0.884***	0.993	-0.366***	0.955***
Real wages	-0.84	-0.225	1	-0.416

***Significant at 1%

The table above shows that there is a strong positive correlation between CPI for food and inflation whilst on the hand there is a strong negative correlation between real wages and inflation. This is consistent with *a priori* expectations. The trend is the same for average minimum wages and foreign exchange rate. A unit depreciation in local currency resulted in an almost unit increase in CPI for food. The results presented above illustrate that deterioration in the macro economic environment is strongly related with a reduction in households' ability to access food from the market.

Correlation among CPI for food and inflation, real wage and foreign exchange was found to be significant at 1% level of significance. The trends among these variables imply that continued increase in prices for food is expected to increase inflation, reduce real wages. In addition, upward movement in the CPI for food is also expected to be positively correlated with the movement in the exchange rate in the 2006/07 marketing season.

4.1.3 Market drivers and determinants of food security trends.

Because of lack of data, some hypothetical correlations between market drivers and some variables are presented in the *Annex*. Among some of these correlations, is the relationship between food security outcomes and macro economic variables. *A priori* relationship between some market factors and food security determinants and outcomes are also presented in the *Annex.*

5 CRITICAL ANALYSIS OF MACROECONOMIC AND AGRICULTURAL POLICY SCENARIOS AND FOOD SECURITY OUTLOOK 2006/7

5.0 Introduction

This section explores the domestic macroeconomic, food and agricultural policy scenarios for the period 2006/7. Policy scenario analysis has to be informed by present day economic, social and political realities. The present domestic macroeconomic crisis and national food security situation makes policy reforms socially desirable but not necessarily politically feasible nor inevitable. Growing disquiet about the worsening macroeconomic imbalances fueling runaway inflation and aggravating economic hardships has brought a new sense of urgency in the search for innovative and effective domestic policy strategies for stimulating economic recovery. Government frustration with rent seeking corrupt behavior associated with state-run controlled system of pricing and distributing agricultural inputs has given new impetus to agricultural and food security policy reforms.

What is the range of politically feasible macroeconomic policies and agricultural policy reforms in the short- to the medium-term of eighteen months and under what assumptions about the domestic political economy and international environment are these policy options feasible to undertake? Of the basket of alternative macroeconomic and agricultural policy reforms in domestic policy possibility set, which combination represents the best-case versus the worst-case policy scenario for Zimbabwe's food security outlook for 2006/7 period. What will be the corresponding food security implications of these policy scenarios? This section of the paper is structured to provide objective insights on these fundamental questions. It shall end with objective assessment of realistic policy prospects for 2006/7 and its corresponding food security outlook.

5.1 Current Debate on Macroeconomic and Agricultural Policy Direction

The government is under increasing pressure from internal stakeholders to review current macroeconomic and agricultural policy strategies in the face of apparent policy failure to turn around the economy. The food security outlook for 2006/7 depends critically upon implementation of successful macroeconomic stabilization programs and efficient agricultural marketing and food security strategies. Growing macroeconomic instability and rising inflation is a cause of great political concern because of its potential implications on food security during the next sixteen months. Launched as part of the government's turn around strategy, the current portfolio of macroeconomic policies and agricultural interventions have so far failed to arrest further economic decline, reduce hyperinflation to double digits and ensure national food security.

The failure of government's much - publicized economic turn- around strategy of 2004 has left economic authorities with diminished self confidence in their internal capacity to resolve the

country's macroeconomic and food security policy challenges on their own. In response to this apparent policy catastrophe, government may respond by hardening their current policy positions seeking more and more controls to centrally manage domestic economy or retreat towards decentralized free market system and conventional macroeconomic stabilization policies. Stakeholders and policy makers remain divided on the nature of desired economic policy reforms needed to restore macroeconomic stability, economic growth and food security. Some see the need for government interventions and centralized management as key to economic recovery. Others point to a retreat from controlled marketing and profligate state spending towards a free market system of allocating scarce resources and disciplined fiscal management as the only way out of the current crisis. The differences between contesting schools of thought reveal ideological differences in the paternal origins and root causes of Zimbabwe's complex macroeconomic imbalances and economic crisis.

The pro-government controls school of thought blame external forces for engineering the macroeconomic downfall by rallying international financial institutions against Zimbabwe in retaliation for its land reform program. In the absence of international financial support, prospects for agricultural and economic recovery depend firmly on government mobilizing fiscal funding for investment in agriculture and economic recovery. Thus government deficit spending is perceived as inevitable and its inflationary effects as unavoidable short-term social cost of stimulating agricultural growth on the back of which the country will achieve sustained economic recovery and long term macroeconomic stability. The "victim of external sanctions" theorem is devoid of serious domestic strategies for aggressively attracting international capital and development assistance from Western capitals accused of colluding with global detractors to impose de facto economic sanctions against Zimbabwe.

A contesting school of thought blames Zimbabwe's macroeconomic crisis squarely on government economic mismanagement. Profligate domestic economic policies induced macroeconomic instability and squandered the country's international political goodwill. The government is blamed for tarnishing the country's global image by implementing an unnecessarily confrontational land reform program, violating human rights, repressing political freedoms and violating human rights in an era in which progress towards good governance, democracy and respect of human rights shape international perceptions. The policy actions of government earned the country a costly reputation as a pariah state. Due to this unfortunate classification as a risky destination for foreign capital, Zimbabwe is perceived as an unsafe destination for international capital in an increasingly competitive global market. In the global corridors of power in Washington and Brussels, Zimbabwe is deemed unworthy of international goodwill and development assistance beyond basic humanitarian support. Zimbabwe has been left alone to rely on its own capacity to finance its own balance of payment and economic development programs.

5.2 Characterizing Best-case and Worst-Case Policy Change Scenarios

Given the strategic importance of the agricultural sector in Zimbabwe's economy, the macroeconomic policy debate is completely inseparable from the ideological debate on the appropriate role of government in facilitating agricultural development and ensuring national

food security. Indeed it was government attempts in the aftermath of the 2002 Land Reform Program to command and control agricultural recovery and food security through the reintroduction of agricultural market restrictions and price controls - long discarded under World Bank inspired economic reforms of 1991 – that aggravated fiscal imbalance. The dramatic shift in ideology towards command agriculture reflects lingering mistrust of the free market fundamentals of a mixed economy within government policy circles. The resultant distortions in domestic agricultural and food product and input markets prices have aggravated economic inefficiency dampening prospects for agricultural and economic recovery. The rent seeking opportunities created by the state-managed agricultural support schemes and centralized system of allocating scarce inputs, fuel and financial resources at subsidized rates has nurtured corrupt practices among beneficiaries who have diverted resources meant for agriculture to speculative non productive ventures.

The failings of the state interventions and especially the corruption tendencies it has nurtured have drawn the attention of a horrified Presidium brightening the political prospects for an informed fundamental shift in the direction of domestic agricultural policy. However divided economic interests of internal stakeholders within government and a politically restive electorate that has already endured three years of economic hardships may render those IMF-styled economic austerity policy measures that might be necessary to restore macroeconomic stability socially infeasible and politically untenable. What therefore is the best case and worst-case scenarios for macroeconomic and agricultural sector policy reform in the next eighteen years?

The Box below presents a brief characterization of possible domestic policy changes along two fundamental dimensions viz macroeconomic stabilization and enhancing efficiency of agricultural and food markets.

	Policies that Enhance Macroeconomic Stability eg drastic cuts in fiscal deficit spending	Policies that Aggravate Macroeconomic Instability eg growth in fiscal deficit spending
Agricultural and Food Policies that enhance marketing efficiency and cost effectiveness of food security support programs Eg Scaling down state controls in food markets and agricultural factor inputs to a facilitative and regulatory role, Adopting strategy of targeted food security	**BEST CASE SCENARIO** **A1: Cutting down on budget deficit spending** by trimming down size of government, commercializing and privatizing operations of parastatals that are not producing pure public goods and services, A2: Improved agricultural marketing and pricing of inputs and products - Adoption of reforms in the agricultural markets to improve efficiency of the controlled marketing and pricing system, and in the distribution and utilization of subsidized inputs and financial services - Replacing blanket subsidies with	**MIDDLE GROUND SCENARIO – Agricultural Market liberalization under macroeconomic Instability** **B1: Expanding budget deficit spending** by increasing government size, continuing with ineffective productive sector support schemes and poorly targeted costly agricultural input and food security support schemes, B2. Same as A2- Improved Domestic agricultural and Food Policies without much restriction on government expenditure on agricultural support services - Food security support schemes are reformed for better targeting of farmers

	targeted food security safety nets for vulnerable populations and agricultural development support schemes for the poor farmers without access to markets - Facilitating adequate access to financial and capital markets , input and product markets for commercially viable newly resettled A2 farmers, - Targeting only the vulnerable farmers and consumers with special support schemes A3: Repairing the country's tarnished international ratings for credit and investment capital – – by strengthening institutions and practices of good governance, democracy and nurturing transparent culture of respect human rights and political freedoms	- Providing targeted agricultural support schemes to the vulnerable agricultural populations with potential to climb out of poverty and food insecurity - Facilitating and deepening access to financial, input and product markets for commercially viable farmers through government expenditures B3: Aggravating country's low international ratings of the country's credit and investment risk, suitability for multilateral assistance for development financing - eg by engaging in further acts of state seizures of property, bad governance, human rights violations, and repression of political freedoms
Expansion of Command system of Agricultural production, input distribution and product marketing	**C. MIDDLE –OF-THE ROAD POLICY REFORM SCENARIO** C1: Macroeconomic stabilization policies same as in A1 C2: Intensified command agriculture - Centralized non market distribution of input and products - Government take over of pricing of more and more commodities - State control of exports of crops - Expansion of public investment in agricultural support schemes C3: very limited scope for luring international financial assistance – without embrace of free market system	**D: WORST CASE SCENARIO** **DI: Worsening Macroeconomic instability driven by undisciplined government deficit budget spending** - **Same as B1** **D2: Worsening agricultural market repression and ineffective and costly food security policy measures** - **Agricultural and food market policies same as C2** **D3: Aggravation of negative perceptions of the country in world community due to worsening macroeconomic instability and dangers of social unrest**

5.3. The best case Macroeconomic and Agricultural Policy Scenario

This policy scenario is characterized by adoption of comprehensive and effective macroeconomic stabilization program as well as implementation of market oriented agricultural and food policy reforms to ensure efficiency in production and distribution of commodities as well as cost effectiveness in protecting food security of vulnerable populations. Given the current macroeconomic imbalances, the economic austerity measures will involve drastic

reduction in government deficit spending and reorientation of state expenditure towards productive public investments and away from subsidizing private investments. The macroeconomic policy measures that are called for resemble those advocated by IMF/WB as precondition for receiving balance of payment support. They require reduction in size of government, streamlining the civil service by retrenching workers from oversized and duplicate Ministries resulting in short-run increase in unemployment. They also require commercialization of some of the state run non-core public services that can be provided through private ventures. Recent proliferation of subsidized government provision of agricultural inputs and investment finance schemes to newly resettled farmers regardless of means will invariably have to scale down, redesigned if not entirely eliminated.

One of the major challenges of successful implementation of macroeconomic stabilization is the need for balance of payment stabilization without which domestic foreign exchange markets will remain a source of instability and cost push inflation. Given Zimbabwe's current foreign exchange crisis which has ground some competitive industries to shut-down, stabilization of foreign currency inflows and ensuring efficient market based system of transparent allocation of limited supplies is a key to sustainable stabilization programs. In the short run, the best case scenario for improving foreign exchange situation is through legalization of a liberal foreign exchange marketing system such as an open system of foreign currency auctioning to establish competitive rates of foreign exchange and allocate limited supplies to most productive uses.

On the agricultural market and food policy front, the best case policy scenario involves improving efficient operation of domestic agricultural and food markets by facilitating rather than stifling free market competition. This calls for dismantling of the government's newly established agricultural command and control institutions for setting producer/consumer prices and for allocating scarce agricultural inputs and financing system. Instead, government resources will go towards provision of private incentives to agribusiness industry and commerce to ensure adequate market provision of key inputs to safeguard production. Government will still play a market regulatory role of defending competitive pricing of commodities. In facilitating development and food security of vulnerable target groups, government role is to provide targeted cost-effective agricultural production support as economic ladders out of poverty and food security baskets of basic material support as a safety net only for those that have temporarily or permanently fallen on hard times. While Zimbabwe implemented agricultural market liberalization programs in the 1990s, the reforms failed to articulate the appropriate food policy measures for targeted protection of specific vulnerable groups in urban setting and among the rural agricultural and landless populations. This resulted in government application of costly policy of blanket food subsidies through controlled consumer prices while taxing food grain producers. These producer price disincentives accounts for the declining trend in domestic grain stocks and for precarious food security situation in 2006/7 despite the blessings of a good rainfall season.

5.3.1 Expected Impact of Best Case Macroeconomic & Agricultural Policy Scenario on Food Security

(a) Reduction of Fiscal Deficit Spending and Restoration of macroeconomic stability:

The immediate impact of macroeconomic policy reforms centered around reduction in government fiscal deficit expenditure and domestic borrowing would be a reduction in the rate of inflation presently driven primarily by government's inflationary deficit spending and financing system. With drastic reduction in government spending in the last half of the 2006/7 fiscal year, one would expect inflation to decline from 1200% to triple digits rather than continue to escalate beyond 1500 % as presently projected. The generality of the working population will experience an immediate economic dividend from the package of macroeconomic austerity policies, as real incomes will rebound on the strength of diminished inflation. Furthermore, reduction in government borrowing will stabilize money supply and reduce cost of borrowing stimulating growth in industrial production during the last quarter of 2006 financial year.

(b) Employment Creation – Reversing the Retrenchments from Industry

The reduction in government's budget deficit spending cannot be achieved without significant right sizing of government operations and inevitable retrenchment of workers in the civil service. Standard policy measures for restoring fiscal balance include downsizing the national security forces to peacetime levels, streamlining duplicative divisions of various Government Ministries, consolidation of some Ministries while abolishing others. These budget-saving measures often also result in improved bureaucratic efficiency while sentencing some career civil servants to unemployment and livelihood insecurity. This is often a bitter pill for government to stomach and yet they are necessary for the austerity program to achieve the goal of restoring macroeconomic balance. Short-run adjustment costs for laid off civil servants are far less today than they were before land reform during ESAP of 1991 as significant proportion of civil servants are beneficiaries of the fast track land reform program which somewhat contributed to the national economic crisis.

Beyond the civil service, the prospects for industrial growth raise hope for reemployment of retrenched workers in industries that presently have shut down or scaled down business operations. Macroeconomic stability raises the prospects for hiring of casual workers, improved job security, real income stability and food and livelihood security of urban working class that has been surviving under constant threat of retrenchment in the face of diminishing economic prospects under hyperinflationary conditions. The stimuli for positive employment outlook is reduced cost of capital, stable and predictable business environment and improved access to imported raw materials due to efficient and transparent system of foreign currency allocation

With competitive free marketing of foreign exchange, domestic inflows of foreign currency, especially from Zimbabweans abroad, are bound to grow. Efficient allocation of this scarce foreign currency resource to competitive productive sectors of the economy would improve industrial growth. Free market access to foreign currency at opportunity cost exchange rate will ensure growth in competitive export oriented and foreign exchange saving import-substitution industries presently constraint by limited state allocation of foreign currency for importing intermediate. However persistent shortages of electricity from the monopolistic public utility can constrain recovery. While the import bill for electricity should eventually become self – financing, in the short run import supply of electricity will remain a state subsidized strategic public toll good. Ability of the state to acquire adequate foreign currency at market based foreign

exchange rates shall depend increasingly on fiscal budget savings and growth as its tax revenue base increases with economic recovery

5.3.2 Expected Impact of Best Case Scenario Agricultural Market Policy Reforms on Food Security Outcomes

A combination of macroeconomic stabilization policies and agricultural market policy reforms that enhance efficiency will create a best case domestic scenario for agricultural growth and sustainable food security. Efficiency of agricultural and food markets is presently compromised by a resurgence of a costly centralized command system of government control of production and interference with the free market system of pricing and distribution of agricultural inputs.

The expansion of the grain marketing monopoly mandate of state-owned Grain Marketing Board further compromises efficiency in marketing and distribution of staple food grains. The portfolio of current government interventions in agriculture and food markets involves a high fiscal cost driving hyperinflation. A return to a regulated but free market system of allocating agricultural inputs and distribution of food would save society considerable resources and efficiency losses. With better targeting of desired agricultural production and food consumption support to benefit specific vulnerable groups among farmers and consumers while the rest are left to rely on improved market access, social goals of government interest can be achieved efficiently using the least possible fiscal outlays.

Faced with deepening domestic shortages of food grain and fearing speculative hoarding of limited food stocks, government entrusted the Grain Marketing Board (GMB) with a comprehensive monopoly in the staple grain markets. The market operations of GMB, constrained by bureaucratic red tap, lack of market intelligence and limited budget, made the food situation worse by failing to move grain efficiently from surplus regions to deficit regions. Despite its capacity constraints, the government paradoxically continues to ban commercial imports of food grain a policy which has aggravated domestic availability and access to adequate food even for households with financial means to afford imported maize. Liberalization of these domestic agricultural and food marketing functions of the over-extended GMB would improve market efficiency and enhance household food security of maize producers and consumers alike.

Shifting towards free market pricing of maize will significantly enhance income of smallholder producers, domestic market supplies of maize and small grain; make maize more affordable in deficit areas presently buying their food requirements from parallel markets at prices higher than free market consumer parity prices. The 2006/7 pan-temporal maize producer price of Z$31 million (or US$60) per ton announced after harvest season represents an implicit taxation of domestic maize producers of 150 percent over the landed cost of imported maize. Yet majority of vulnerable consumers in deficit areas are not benefiting from these low producer prices. Due to poor price incentives and inefficient marketing system, GMB is receiving only a fraction of the marketable surplus from producers rendering it unable to supply adequate grain to the market at the controlled lower consumer price of Z$20 million per ton.

For the bulk of their food security requirements, consumers in deficit urban and rural areas increasingly rely on the parallel grain markets where they pay a scarcity based premium price

several factors higher than the official price that could be if GMB had stocks to support it. In surplus regions, where GMB often fails to pay the official producer prices on time, producers are forced to sell the bulk of their maize surpluses to rent-seeking underground middlemen offering cash-on-the-spot prices lower than official GMB producer price. These middleman sell their grain in the parallel market retail markets thriving in deficit urban and rural areas where absence of GMB supplies often push retail prices several times higher than subsidized policy prices of GMB and close to import parity retail prices. Thus removal of GMB monopoly is unlikely to adversely affect food security of consumers that government policy purport to protect as these populations are already paying more than the full cost for most of their annual food requirements.

The only major beneficiaries of GMB monopoly and government maize subsidies are millers and large-scale livestock farmers who presently acquire grain cheaply from GMB at less than producer price and sell at a profit through official and illegally through the lucrative parallel markets as evidenced by GMB policing. Given their high incomes, this group is not deserving of social protection.

Liberalization of domestic marketing and imports of grain would provide significant producer price incentives to stimulate maize production and commercial import supplies to stabilize domestic food markets and improve access to food. Inefficiencies of GMB in buying grain from surplus producing regions inevitably cause depression of local maize prices in a buyers' market. These marketing and pricing inefficiencies over the years have forced competitive smallholder maize producers to cut maize production at a time when national markets are experiencing severe shortages. Field observations indicate that farmers are favoring free-market legumes such as groundnuts, mbambara nuts, and soybeans in the maize-belt provinces of Mashonaland at the expense of marketable surplus of maize. These food security strategy of these agricultural households consist of a subsistence strategy for the first four to eight months of the dry season and shift to a legume (or local brew) selling and food buying strategy for later part of the season. (See USAID field reports, 2006). Only competitive import parity prices would lure these market-oriented farmers back to produce more maize for national security and strategic grain reserves

5.3 Worst Case Macroeconomic and Agricultural Market Policy Scenario

5.3.1 Characterization of the Worst case Scenario and its Prospects

The worst case scenario is summarized in Quadrant D in the diagram above. It reflects a situation of worsening macroeconomic instability due to continued growth in government deficit spending, continued spiraling of hyperinflation beyond 1,400 per cent sending the economy into further contraction and retrenchments of staff as foreign currency shortages and cost of business escalates to unsustainable levels forcing firms to close down. With ever increasing fears of civil unrest, the political economic incentive for government control of economic system of distribution of scarce resources and allocation of economic opportunities are heightened despite increasing tendencies for rent seeking and corruption among beneficiaries in the command economy. Given the strategic political and economic significance of agriculture, it is the sector that will experience greater centralization and control of agricultural production operations

through such programs as Operation Maguta which are costly in terms of fiscal budget outlays but produce limited social returns. The deepened control of agricultural inputs and product markets results in economic inefficiency and shortage of inputs outside of the official channels culminating in further deterioration in efficiency.

How realistic is this worst case scenario? The macroeconomic scenario is realistic given supplementary budget deficit and expected growth in domestic borrowing all of which are bound to increase inflation beyond the 1400 per cent mark. The monetary policy statement showed no indication of concern over growth in money supply through increasing notes and coins in circulation and appear set to continue with a policy of offering government unlimited access to money to finance its fiscal over-spending. The review of foreign exchange rate to Z$250,000 per US$ fell short of market expectation given the parallel market rate of Z$600,000 per US$ and is unlikely to neither motivate export growth nor lure more foreign currency remittances by external investors or Zimbabweans in the diaspora. On the agricultural scene there are no indications of immediate policy shifts towards free market system nor critical disgruntlement with poor returns to government seasonal investments in agriculture through it various support programs. Thus this worst case scenario (quadrant D) is indeed a likely scenario with some possibility of landing in quadrant C.

5.4.1 Food Security Implications of the Worst Case Policy Scenario

(a) Macroeconomic Impacts and Food security Consequences

Increased deficit spending is likely to further accelerate hyperinflation beyond 1400%. Financing of this overspending will further crowd out private companies from money market and increase cost of capital culminating in further contraction of economic production and GDP in the last half of 2006. Rising domestic inflation relative to inflation rates prevailing in economy of major European trading partners will imply that the Zim-dollar will continue to lose its value against major currencies. With a shadow exchange rate hovering towards the Z$1million per USD the premium over the official exchange rate set at Z$250,000 for the last half of 2006 will impose an export tax of almost 300%. This tax shall adversely affect short-term incentive for investment growth and capacity utilization in the export sector. The only potential for a positive development on the foreign currency in the short run horizon is the slim possibility of government landing lucrative deal under its aggressive “Look East” policy mortgaging some mineral rights for immediate injection of foreign currency. Zimbabwe traditionally faces a huge import bill in the last quarter. Without such an exogenous injection of foreign currency, the medium term prospects for recovery will become gloomier as shortages of fuel, electricity, agricultural chemicals at the start of the forthcoming farming season will reduce agricultural output and economic prospects for recovery in 2006/7

A shrinking economy implies worsening employment security for the diminishing working class population. The working class population will experience further reduction as retrenchments are bound to grow in the face of worsening economic hardships. Real income of workers will continue to be eroded by hyperinflation. These two business realities of escalating operations cost and hyperinflation will create volatile situation as minimum wage adjustment shall continue

to fall short of inflation indexed cost of living adjustments culminating in precipitous decline in the livelihoods of workers.

(b)Impact on Domestic Food Market and Food Security Outcomes

The domestic food security situation under the worst case scenario will largely depend on response of the international humanitarian assistance community to the plight of Zimbabwean community in the face of worsening humanitarian crisis. Assuming the rate of response to Zimbabwe's request does not change significantly from previous two years, then up to 60 percent of requested food assistance will be secured and perhaps 40 per cent of that will actually be realized. Thus Zimbabwe market will short of 60,000mt – 150,000mt short in its annual food security requirements. The Grain Marketing Board will however continue to experience severe shortage of stocks of grain to supply millers. This will cause market supply uncertainty and price risk in the official grain market especially in rural and urban areas of the district project to experience food shortages (ZIMVAC report, 2006). How government chooses to react to official shortages of grain in GMB silos will affect the food security situation of consumers and producers alike in both surplus and deficit areas.

Under the worst case scenario, government is expected to react to modest shortfalls in domestic food situation and empty silos at GMB by tightening Grain Marketing Board controls on food grain markets and food prices. Fearing political exploitation of the food situation by the opposition - already firing warning shorts about mass actions, and economic exploitation by rent seeking illegal grain traders already labeled enemies of the state by GMB, government could descend harshly on vulnerable rural and A1 farmers confiscating grain when voluntary appeals fail to increase sales to GMB . Such a policy of forced sales or confiscation of grain from farmers reluctant to sell to GMB was attempted two years ago and could be applied again on a wider scale targeting the vulnerable rural and A1 as well as A2 recipients of support under Operation Maguta and other government support schemes. The outcome would be a transformation of surplus households and food secure districts into food insecure households and red districts in need of humanitarian assistance during the middle of farming season.

If GMB controlled pan-territorial/pan seasonal prices persist in deficit and surplus areas, GMB selling prices will fall short of open market prices that traditional increase with distance from surplus region and time. Thus, the food security implication in surplus regions would be as follows:

a) Percent food insecure population increases
b) Price ratio of GMB to Free Market, will decrease leading to an increase in prices for the food deficit areas
c) Decrease in the percentage of harvested grain being sold to the Grain Marketing Board, leading to a decrease in GMB stocks. This out come will lead to an increase in stringent enforcement in market control by the GMB because it will be running out of grain faster than anticipated.

In surplus regions, low GMB prices will continue to diminish prospects for GMB meeting its target for the marketing season undermining its role in the domestic food market especially in deficit regions and after the 2006/7 planting season. Given that GMB market activity or

inactivity affect food prices in the retail market especially in major cities and towns of Harare and Bulawayo, poor producer pricing policy creates artificial shortages of grain. It also increases incentives of rational optimizing surplus farmers to sell more of their grain stock into the local market and parallel marketing system branching into all major domestic and cross-border regional markets.

Thus outcome of low GMB prices will be as following;

a) GMB intake decreases and volumes of grain in parallel markets increases, leading to grain deficits and limited access to grain in surplus areas
b) Increase in GMB handling costs
c) Increase in the GMB budget deficits

Food access of deficit households in surplus areas is enhanced in the short-run by the presents of GMB stocks sold at the GMB prices which are less than the free market prices. But as soon as GMB runs out of stocks, food access will be determined by free local market prices, where the free market prices will be greater than the GMB prices.

Access to food in deficit areas:

Access to food in deficit areas will depend on the efficacy of the GMB supply system and logistics. If the GMB has adequate stocks: fuel shortages, NRZ wagon shortages, might disrupt GMB distribution of grain from surplus regions to deficit regions, and poor pricing policies eg GMB selling prices being less than GMB producer prices. If GMB has inadequate grain stocks; official domestic supply of food grain to deficit areas will be erratic leading to the following outcomes:

a) Decrease in food availability and accessibility in deficit regions, leading to an increase in the percentage of population in deficit regions that will be food insecure
b) Rise in local open market prices of grain further eroding purchasing power and food security of otherwise food secure populations further increasing the need for food security support
c) Increase in the number of districts and towns that are food insecure, greater need for humanitarian support from government and NGOs

Government response to food security situation especially in deficit area shall depend on its ability to finance commercial imports of food from neighboring countries and international market. Given the balance of payment situation and foreign currency account realities, Zimbabwean government is unlikely to be in a position to self-finance GMB importation of grain. Thus in the worst case scenario, Zimbabwe's food security outcome shall depend largely on the ability of the humanitarian organizations to timely secure adequate grain stocks for vulnerable rural and urban populations. One source of uncertainty in humanitarian needs is the unknown surplus demand that GMB will fail to meet in major urban areas which can potentially be met through commercial imports of grain. But without adequate commercial imports of grain as anticipated under the present commercial food import policy restrictions, and with hindsight of past experience over the last three years unmet food demand of in commercial grain markets of the well-to-do population worsens food insecurity situation of the food insecure vulnerable populations. The greater the price gradient between open markets in urban centers of surplus demand and rural centers receiving food aid, the greater is the proportion of donated grain leaking to the same urban areas. This observation once again highlights the need for an

integrated approach to assessment of national food security situation combining aggregate food market analysis with disaggregated mapping of projections situations and requirements by district, ward and household populations

6 Conclusions and Recommendations

It is apparent from this research that the current set of domestic policies is making attainment of national food security a distant vision. Increased deficit spending is likely to further accelerate hyperinflation in the 2006/07 marketing season. Financing of this overspending by printing more money will most likely drive inflation beyond the 1,000 per cent mark again, culminating in further contraction of economic production and GDP. Thus, food access is expected to be compromised as effective demand will be affected by a loss in consumers' buying power.

Inefficient agricultural policies seem to be worsening the already precarious food security situation in the country. Non-market distribution of inputs are imposing an unnecessary burden on the fiscus and worse still are not stimulating the expected supply response as most of the inputs being used for speculative purposes. As if this is not enough, output price controls against a background off escalating input costs is acting as a major disincentive to production of grain crops. Thus production of grain crops is likely to be affected by the controls which the government is most unlikely to remove in the coming season.

It is recommended that the government dismantles the current set of disabling policies in order to breathe life into the agriculture sector again. As presented earlier in this paper, the best case scenario is one that puts in place agricultural and food policies that enhance marketing efficiency and cost effectiveness of food security support programs. For instance the government should scale down state controls in food markets and agricultural factor inputs to a facilitative and regulatory role. The key focus will be to stabilize the macro economic environment by first cutting down budget deficit spending by trimming down size of government, commercializing and privatizing operations of parastatals that are not producing pure public goods and services. Another policy shift that would be necessary would be to improve agricultural marketing and pricing of inputs and products by adoption of reforms in the agricultural markets to improve efficiency of the controlled marketing and pricing system, and in the distribution and utilization of subsidized inputs and financial services. The government should also replace blanket subsidies with targeted food security safety nets for vulnerable populations and agricultural development support schemes for the poor farmers without access to markets. In addition, the government should facilitate adequate access to financial and capital markets, input and product markets for commercially viable newly resettled A2 farmers. Further more, the vulnerable farmers should be targeted with special support schemes. Lastly, the government should work to improve the tarnished image of the country by strengthening governance structures in order to access global capital which the country badly needs to stabilize the macro economic environment which has taken a battering over the past half a decade.

The major macro-economic drivers for food security in Zimbabwe coming out of the correlation analysis are; Inflation, Wage Rates, Exchange rates and Consumer Prices. This implies that for the food security situation to improve in the 2006/07 marketing year government should work to improve favorable policy options on these variables.

Annex

Relationship between Food Security Outcomes and Key Determinants/Drivers
Macroeconomic Determinants of Trends in Food Security Components

Macroeconomic Determinants of Food Availability

	Fiscal Budget Deficit	***% Budget Allocated to Agriculture***	***Rate of Inflation***	***Interest rates***	***General Wages***	***Foreign Exchange Rate***
Aggregate Cereal Production	-	+	-	-	+/-	-/+
GMB Closing Stocks	+	+	+	-	+/-	+
Govt Cereal food Imports	-	+	+	-	0	-
Food AID	0/-?	0/-+?	+/-?	0/-?	-/0?	+/0?

Macroeconomic Determinants of Accessibility and Utilization

	Fiscal Budget Deficit	***% Budget Allocated to Agric***	***Inflation Rate***	***Interest rates***	***General Wage Rate***	***Foreign Exchange Rate***
Cost of Food Basket of High Income Middle class Low Income	+	-/+	+	+	+/-	+
Real Incomes of industrial workers	-	-/+	-	-	+	-
Real Income of Farm workers	-	+/-	-	-	-/+/0	-
Real Income of Farmers	-	+	-	-	-	-/+

Macroeconomic Determinants of Food Security Outcomes – Health Index

	Fiscal Budget Deficit	% Budget Allocated to Agriculture	Rate of Inflation	Interest rates	General Wages	Foreign Exchange Rate
% Population Food Insecure	-	+	-	-	+/-	-/+
% children under 5 yrs under weight	+	+	+	-	+/-	+

Market Determinants of Food Security Trends

Market Factors affecting Food Availability

	Aggregate Demand for Cereal	Retail Price of Cereals	Producer Price of Cereal	Marketing costs - transport Cost, GMB handling costs	Domestic Marketing Policies eg price controls (+ve vs –ve incentives)	Food Imports & Export Policy Restrictions (+/-)
Aggregate Cereal Production	+	+	+	-	+/-	+/-
GMB Stocks	+	+	+/-	-	+/-	-/+
Cereal food Net Imports	+	+	-	-	-/+	-/+
Food AID	+	+	-	+	--/+	+

Market Factors Affecting Food Accessibility and Utilization

	Aggregate Demand for Cereal	Retail Price of Cereals	Producer Price of Cereal	Marketing costs - transport Cost, GMB handling costs	Domestic Marketing Policies eg price controls (+ve vs –ve incentives)	Food Imports & Export Policy Restrictions (+/-)
Cost of Food Basket by income group	+	+	+/-	+	+/-	+/-
Real Incomes of industrial workers	-/0/+	-	-/0	-	+/-	-/+
Real Income of Farm workers	+/-	+/-	+/-	-	-/+	-/+
Real Income of Farmers	+/-	+/-	+	-	+//-	+/-

Market factors affecting Food Security Outcomes – Health Index

	Aggregate Demand for Cereal	Retail Price of Cereals	Producer Price of Cereal	Marketing costs - transport Cost, GMB handling costs	Domestic Marketing Policies eg price controls (+ve vs –ve incentives)	Food Imports & Export Policy Restrictions (+/-)
% Population Food Insecure	+/-	-	-/+	+/-	+/-	+/-
% children under 5 yrs under weight	-/+	+	+-	-/+	+/-	-/+

Household Factors of Food Security Trends

Household Level Factors Affecting Food Availability – Agricultural Household

HH Level per capita	Acreage under cereal	Yield Per ha	Maize/ Fert price ratio	Family Size	Type of Household 1=widow	Average size of agric loans	Access to draft power	Access to land
Cereal production	+	+	+	+/-	-/+	+/-	+	+/-
Food security stocks	+/-	+	+	+/-	-/+	+	+	+
Net purchases	+/-	+/-	-	+	+	-	-	-
Food AID	-/+	-/+	-/+	+	+	-	--	--