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Food price inflation and the poor

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Food Price Inflation and the Poor

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Declarations

I, Bandile Ngidi, declare that this research report is my original work and that which is not is referenced accordingly. It is submitted in partial fulfilment of the requirements for the degree, Master of Commerce (Development Theory and Policy) at the University of the Witwatersrand, Johannesburg. It has not, either in whole or in part, been submitted before for any degree or examination in this, or any other University.

Name: Bandile Ngidi

Date: 18 November 2015

Signature:

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Abstract

Food price inflation has been an important subject of debate internationally since 2008. This sharp increase in food prices experienced during 2008 lead to intense research into the causes, dynamics and responses to this particular instance of food price inflation. The international literature attributed food price inflation to such factors as climate change, increases in energy costs and speculative activity in financial markets for agricultural commodities. This research report undertakes a review of the measurement of food price inflation in South Africa, broadly assessing how it is to be linked to the poor in South Africa. The research report focuses on the work of institutions concerned with the measurement of food price inflation in South Africa. Different methodologies of identifying foods as food staples are looked at. Food prices and trends are analysed using CPI data from January 2008 until October 2008, using selected consumer price index series from Statistics South Africa. The research report finds that the institutions studied show evidence of that higher food price inflation is correlated with demographic markers of poverty, although the traditional measure, the CPI, does not suggests that this is very extensive. This, it is argued, is due to the calculation methodologies used in the published CPI, and the data period. The research report then ends with an overview of the political economy of food in South Africa, thereby makes recommendations as to why the measurement of food price inflation is important for the poor.

Chapter One: Introduction

Food price inflation has been an important subject of debate internationally since 2008. This sharp increase in food prices experienced during 2008 lead to intense research into the causes, dynamics and responses to this particular instance of food price inflation. The international literature attributed food price inflation to such factors as speculative activity and price volatility of agricultural commodities.

This research report aims to understand food price inflation and how it affects the poor in South Africa. In particular, the research report takes a political economic perspective to understanding the state of identification, measurement and evaluation of key food staples consumed by South Africa's poor, with the ultimate tentative of developing an effective tool to properly understand this phenomenon, the price trends that these face, and to be used with other perspectives to combat poverty in South Africa. This is to say, the statistical analysis is supplemented with an overview of the political economy of food in South Africa, with very brief recommendations as to why the measurement of food price inflation must take not just statistical analysis but also an overview of the key actors in the political economy of food. This would give a more holistic picture of how food price inflation comes about, with the suggestion that a tool that incorporates these approaches would be a useful policy tool. The details of this tool, a "poor food index" that tracks the economic causes of food prices facing the poor are not given in the research report. This arises from the fact that both these fields of study, the field of food price inflation and the field of poverty studies have been extensively researched but with particular methodologies and techniques. In particular, the most relevant literature by Oosthuizen (2007), Oosthuizen (2013) and Finn, Leibbrandt and Oosthuizen (2014) confirm that poorer South African households face higher levels of inflation than national averages. These higher levels of general inflation are in part driven by food prices. However, a heterodox perspective of the interaction between inflation and poverty does not seem to have been adequately covered in South Africa. In particular, a perspective that interrogates the political economy agents that determine the prices of food in South Africa, so as to enable effective policy, is required. A perspective that can speak to the complex dynamics of poverty is required.

This research report aims to reflect on the state and challenges of identification, measurement, evaluation of key food staples in South Africa. It aims to identify and

analyse key food price trend that the poor may face, and reflect on challenges to understanding particular trends and offer solutions. The research report finally aims to briefly analyse the context that such measurement tool would be applied, namely a situation of precarious work and poverty.

Chapter Two: Literature Review and Research Scope

Introduction

Food price inflation has received much attention in the years since the 2008 food prices inflation crisis. (See Gilbert and Morgan 2010; Zezza et al, 2008; Mittal, 2009; Kumar & Quisumbing 2013 amongst others). In recent years, the management of inflation has emerged as a core macroeconomic objective in many countries, yet the management of food price inflation has not emerged as an explicit objective of macroeconomic policy- despite the status of food as a basic necessity. In South Africa's official inflation measurements, the measure of core inflation does not include the measures of certain food items (amongst other things) due to the volatile nature of the prices of these items, and their being subject to temporary influences, or being affected by government policy. (Vink & Kirsten, 2002, p. 58) The Consumer Price Index- Food (CPIF) grows at consistently higher rates than core inflation. Even as late as 2014, monthly CPIF moved at rates higher than core inflation. (See (Statistics South Africa, 2014).)

Food price inflation is however crucial to the welfare of the poor, due to what Marxist literature terms 'the crisis of social reproduction'. The development theorist Michal Kalecki (1955, see Wuyts, 2011) argues for focuses on food prices because this type of inflation can be induced by economic growth. To begin with, food consumption takes up largest part of the total consumption of the poor. Then, due to economic growth, increases in income cause an increase in the demand for consumer goods, especially food. When food supply does not meet demand, then inflationary pressures arise. Kalecki argues that structural and market constraints in agricultural markets in developing countries create inabilities of these markets to respond to increases in demand. As mentioned above, this has a greater relative impact on the poor. More relevant to the South African context, Kalecki's argument extends to a longer term perspective on agricultural development and how the structural features of agricultural markets determine whether (and to what extent) agricultural supply responds to the demand for agricultural output. (Wuyts, 2011, pp. 5-9)

Wuyts extends this argument for the focus on food price inflation by highlighting further important aspects and policy implications of the fact that food price inflation has a relatively greater impact on the poor. This is because of the greater relative weight of

food in the consumption basket of the poor. Wuyts notes that the prices of food and non-food consumer goods do not move together at the same rates, and that food prices have a knock-on impact on other non-food consumer goods. Wuyts argues that the more volatile and higher levels of inflation of prices of necessities not only makes standards of living of the poor worse, but also affects how the poor work. Inflation in the price of necessities exacerbated effects of labour market income inequality, casualization and other facets of the 'precarious' nature of employment in many parts of sub-Saharan Africa. (Wuyts, 2011, pp. 10-15)

Finally, the very importance of food as a human essential makes its study important. Consumers are able, (to their obvious peril) to substitute and sacrifice quality (or the consumption altogether) of some necessities such as healthcare, housing and education, but cannot substitute or sacrifice consumption of food. Food price inflation and volatility (and the supply-side factors and constraints related to this) erode real incomes while causing food insecurity and a decline in adequate nutrition amongst the poor, which have knock on effects on the healthcare and other sectors. Importantly, strategies that try to protect income, such as cash transfers are demand-side interventions that only increase demand, likely make the problem worse. Looking at the supply-side determinants of food price inflation and price-setting procedures is therefore crucial.

The crisis of global food price inflation that occurred in early 2007 and 2008 had a number of economic and political consequences. Short-term causes included excessive speculation in agricultural commodity futures markets, drought-induced crop failures in major grain- and cereal-producing regions and a surge in biofuel production in Europe and the United States. Longer-term factors included changing consumption patterns, longer-term distortions in the international trading system that include reduced national and international investments in developing-country agriculture. (Sundaram, 2011, p. 66). Jayati Ghosh (2009, pg. 4) argues that the dramatic rise and fall of world food prices in 2007-2008 was caused by speculative activity in global commodity markets, enabled by financial deregulation measures in the US and elsewhere. Ghosh argues that the role speculation by large financial players in the trade of cash crops was firstly attributed to 'real economy' supply and demand factors, and that speculation was viewed (or widely seen and explained as justified) in order to 'stabilise commodity

prices. International commodity markets began to take on the features of financial markets in that they "became prone to information asymmetries and associated tendencies to be led by a small number of large players." (Ghosh, 2009, pg. 9). According to Ghosh, part of the impact of the 2008 food crises were food riots in as diverse countries in the Central American, the Middle East and North Africa, central Asia and the Far East. Importantly, it was the case that in many countries food insecurity and hunger levels did not decrease after the post-2008 decrease in global food prices due to poor domestic policy that did not adequately ensure sufficient domestic food production levels. (Ghosh, 2009, pg. 17)

International experiences in the political economy of food price inflation

The international experiences in the political economy of food price inflation of various developing and development countries reveal the similar broad themes and interesting differences. Especially focusing on the 2008-food price inflation crisis, there were both long – and short-term causes to the 2008 food-price inflation crisis and it was especially distinguished from other periods of food price inflation. (Mittal, 2009).

Factors include higher energy costs, decline in growth of agricultural production and increased demand from emerging economies. There are also structural factors such as systemic decline in investment in agricultural productivity, states' reduced regulatory role in agricultural production and trade, indiscriminate opening of agricultural markets which has resulted in import surges and emphasis on cash crops. Two more unique contributing factors that made the 2008 food price crisis worse were speculation in financial markets and diversion of food crops to biofuels. Soaring food prices in 2007/2008 had the greatest impact on developing countries especially the so-called low-income food deficit countries (LIFDCS). (Mittal, 2009) These countries had increased food import bills, which negatively affected the balance of payments. The urban poor and the rural poor who depend on the market to access food products are vulnerable to these price movements in the international food markets.

Different countries have different determinants of food price inflation. In the case of Finland, significant linkages were found between prices in input markets and food markets, with a long-term relationship between the two markets. The main markets for inputs consumed by the food markets were agricultural commodities, labour and

energy. (Irz, Jyrki, & Liu, 2013) In Ethiopia, food price inflation was heavily influenced by international foods and goods prices, measured in domestic currency. Large short-term deviations from the long-term trends were caused by agricultural supply shocks. (Admassie, 2013) In Tanzania, both sets of these supply-side factors contributed to food price inflation.

The nature and effectiveness of government have also played a role. In the case of Bangladesh, the hegemony of an undemocratic and unelected 'civil' caretaker government backed by the military made it the case that although it did institute action, it was not held accountable for its inaction in the wake of the crisis. The consequence was a significant rise in the number of households falling below the poverty line. (Raihan, 2013) The caretaker government implemented cuts in tariffs and taxes for imported food, increases in the allocation for subsidies, widening the scope and coverage of the social safety net programmes, public procurement and distribution programmes. Different stakeholders were affected differently according to their interaction and integration with international food markets.

Egypt's political and economic responses to the 2008 food price crisis was complicated by the levels of poverty, agricultural and economic policies and structural constraints of the food subsidy policies, and the 25 January 2011 revolution and the political setup that emerged. (Farouk, 2012)

A political economy approach of looking at Kenya's response to the food price increases from 2002-11 has found that Kenya's food prices have been high and volatile relative to world food prices. The integration of Kenya's domestic food markets to world food markets lead to the transmission of 30 per cent of the changes in world food markets to domestic markets in Kenya. The Kenyan government intervened with both supply-side and demand-side policies. However, the implementation of these policies was not fully institutionalized and relied on the executive, and contributed to the governance debate in Kenya by supporting the institutionalization of this policy-making process. (Nzuma, 2013)

In Malawi, the government's response to the global food prices included price controls specifically on maize, restrictions on domestic maize trade and a ban on maize exports. The focus on maize illustrated the importance of maize to the county. In Malawi

specifically, the legitimacy of a regime is closely linked to the question of food security, mainly defined in terms of accessibility and availability of maize and the national and household levels. (Chinsinga & Chirwa, 2013)

Fuel and transport costs also played a part in the food price crisis experience of certain countries. In Nigeria, the prices of imported fuel into Nigeria lead to sharp increases in the prices of agricultural inputs and transport costs. In response, the government released grains from the reserve, ordered the import of half a million tons of rice to be sold at a subsidized rate and suspended the tariff on rice imports. (Olomola, 2013)

The experiences of this small set of countries show that many factors contribute to food price inflation. It is thus important to undertake a particular study of a particular country's political economy, and see what forces- economic (private or public) social or political are at play in a particular economy.

The importance of studying inflation

The study of food price inflation is embedded within the importance of studying inflation as a whole. From the historical, macroeconomic, and consumer/household perspectives, the price level and price inflation rate have been extremely important economic variables. Many definitive moments in world economic and political history have been linked to inflation, or its more famous variant of hyperinflation. Key events from both the 20th century such as the rise of Nazi Germany and political crises in Latin American countries and the 21st century such as in neighbouring Zimbabwe have been linked to hyperinflation. To some extent, the global food price inflation crisis of 2008 spurred the wave of xenophobic violence across South Africa's townships and poor areas (Masigo, 2009, pp. 3-4)

From the macroeconomic perspective, inflation is an important 'deflator' of economic variables. Nominal economic indicators such as wages, income, gross domestic product and interest rate of money must be deflated by a measure of the price level. Deflation of these nominal values using measures of inflation produces the real values of these variables (Oosthuizen, 2013). Importantly, many of these variables are calculated using the general CPI, without considering whether this reflects the inflation

rates of prices of necessities. For example, child support grants, other cash transfers and sectorial minimum wages are set by the official CPI (Oosthuizen, 2013).

Again, from the macroeconomic perspective, government and monetary policy around inflation is interesting to study. Firstly, the dominance of the neoliberal approach to economics is shown by the fact that inflation-targeting monetary policy regimes are the mainstay of most countries. With specific reference to South Africa, Isaacs (2014) details the different dynamics that highlight the limitations of monetary policy in South Africa in its stated objective of curbing inflation. Amongst others, Isaacs makes a number of interesting points on the (negative) impact of monetary policy on the South African economy. Isaacs argues that the scholarship and rhetoric underpinning monetary policy in South Africa intends for monetary policy (driven almost exclusively by interest rate controls and hikes) to be price stabilising but that it has rather been influenced and that the real influence behind monetary policy has been greater financialisation of the South African economy. Isaacs further explains that the exclusive use of interest rates to target inflation "ignores the role of supply-side factors" (Isaacs, 2014. pg. 42) and that the interest rate which is meant to lead (influence) other inflation-related economic variables (such as wage rate and exchange rate) actually follows these variables since interest rates are backward looking. Finally, high interest rates have had a negative impact on domestic investment which in turn has negatively affected productive capacity in the real economy, which has places inflationary pressures on a number of goods and services within the country.

Secondly, the relationship between economic growth and food price inflation is important. (Wuyts, 2011) Economic growth is taken to be the primary goal of all economic policy and other macroeconomic goals like job creation and others are implicitly taken to be solved by economic growth.

A food staple is a food that forms a basic part of given reference group's diet (see (Food and Agriculture Organisation of the United Nations, 2014). In South Africa, foods like bread, maize, dairy & poultry. (Rakhudu, 2008, p. 1) Even since the early 2000s, retail prices of staple foods in South Africa have been increasing rapidly. This has adversely affected the state's ability to reach its inflation targets, and have raised

concern around issues of food security and health and nutrition of the rural and urban poor in South Africa.

Food price inflation (as well as inflation in general) has been a concern for macroeconomic stability, as well as for those concerned with adequate competition in the price setting process. The policy environment, trends in output, productivity, profitability and foreign trade in the food and agricultural sector are some factors relevant to the price-setting processes. Others are the degree to which the state intervenes in different parts of the many supply chains in the food and agricultural sector, the influence of the regional market (SADC) on South African agricultural markets and prices and the factors that will influence the future of the agriculture and food business. (Vink & Kirsten, 2002, p. 1)

Anti-competitive market structures along the whole agro-food value chain determine price-setting processes of South African foods. Deregulation and liberalization of the food and agricultural markets for the last few decades has led to possible collusion and cartel behaviour. South Africa's Competition Commission has found collusive behaviour in bread, milling, dairy and poultry and this has raised suspicion about other instances of anti-competitive behaviour.

From the consumer perspectives, study of food price inflation must note that food price inflation affects households differently for a number of reasons (see (Oosthuizen, 2007) and (Oosthuizen, 2013)). On the one hand, some evidence suggests that there may be no indication that either the poor or any other income level group shows consistently higher rates of inflation than another income level group. However, it is the case that food constitutes a significant proportion of consumption expenditure by the poor ((Oosthuizen, 2007), (Oosthuizen, 2013) (Zezza, Benjamin, Azzarri, Covarrubias, Tasciotti, & Anriquez, 2009) (Wuyts, 2011) (De Hoyos & Medvedev, 2009). In addition, there is some systematic and methodological difficulty in obtaining the relevant household expenditure and price data for on certain items that are consumed by poor South African households. Thus, drilling down and conducting a study into food price inflation and how it affects the poor is important because this effect is not shown in official measures of inflation unless those measures are disaggregated. (Kirsten, 2012)

The effects of food price increases on poverty are varied, and each type of effect is impacted by the various causes of inflation, and position along the price-setting and supply parts of the agro-food chain. The literature on the effects of food price inflation on poverty shows that inflation affects poor households mainly because of the reduction of real wages and income, and the tendency for nominal wages to rise at a slower rate than prices (Cardoso, 1992). Further, there is a loss of household purchasing power, especially in urban household. In rural households, access to income from agriculture is an important factor to determining whether food price inflation increases poverty (De Hoyos & Medvedev, 2009, p. 10) in parallel to the challenges faced by urban poor household because of urban food systems. (Smith, 1998)

Oosthuizen finds that when analysing the impact of inflation on South African households, the poor consume a limited, concentrated set of goods, and amongst those goods included food, housing and household fuel and power (Oosthuizen, 2007). Food is the largest contributor to consumption expenditure for urban households for in the lower income deciles, but this gradually decreases when higher income deciles are considered. Oosthuizen's (2013) groups poor households not on income but on labour market and other demographic characteristics and finds that food emerges as a large contributor to consumption expenditure in poor households.

In general, (Oosthuizen, 2013)'s findings support the closer study of food price inflation. Oosthuizen finds that two general groups of households had different statistically (and policy-) relevant results. The first group viz. grants recipient households, unskilled worker households, informal sector worker households, unemployed households and households with children. This group faced statistically different weight structures to the all-urban rate, and its inflation rates were significantly more volatile. The second group consisted of unionized worker households, public and private sector worker households, and formal sector worker households. This group had a statistically different weight structures to the structures of the all-urban inflation rate but its monthly inflation rates were not very different relative to the all-urban inflation rate. (Oosthuizen, 2013, pp. 38-39)

A critique of neoclassical theories and policies of inflation

The neoclassical theories of inflation defines inflation as the persistent increase in the general price level, and holds that this increase process of continuous increase in the prices of most goods and services, or the general increase in prices within a country or economy. A "consumer price index" is used to calculate this general price level, which tracks the changes in the cost of a basket of goods and services that a 'typical' consumer would consume. (South African Reserve Bank, 2007, p. 2)

Batten points out that inflation is commonly thought of as being caused by such things as rising wages, rising oil prices, droughts, poor harvests or large government deficits. These factors are commonly called 'cost-push' factors. However, Batten argues this common way of speaking confuses relative price increases of particular goods and services (the increase in the price level of a single good) with inflation (the increase of the price level of all goods and services.) Batten argues that it is both false and misleading to think of inflation of in terms of these factors. It is misleading because it is commonly thought that individual economic agents, be they monopolistic or oligopolistic firms increasing costs , or labour unions increasing wages, cause inflation. This is misleading since these monopolistic firms, if their prices are already high due to being a monopoly; do not have an incentive to raise their prices forever, since the quantity they sell would drop. (Batten, 1981, p. 23)

The cause of inflation, from a monetary perspective, is an oversupply of money relative to output growth i.e. when there is 'too much money chasing too few goods' in the economy. When there is an oversupply of money, households and firms have 'too much' access to money (through easier access to credit or loans, etc. relative to the real output level of goods and services) and this greater aggregate demand forces firms to raise their prices until they can replenish inventories. (Batten, 1981, p. 26)

At the root of the neoclassical theory of inflation is the notion that changes in prices are a result of changes in the quantity of money. (Weeks, 2011, p. 9) This is derived from such theoretical assumptions as the assumption that market economies adjust to their maximum potential output, that the economy only produces one commodity; all purchases of the commodity were made with one instrument ("money") amongst others. If all of these assumptions hold, then it logically follows that all increases of the

purchasing instrument will result in increases in the price of the commodity. (Weeks, 2011, p. 11). This monetary view of inflation is the most dominant and informs policy around inflation. Monetary interventions to combat inflation are used by central banks to curb inflation through control of interest rates. In particular, according to this view, since the main cause of inflation is monetary, the intervention should be the curbing of aggregate demand.

However, a number of important heterodox critiques of the neoclassical theory of inflation make the theme of this research report important. The neoclassical theory (and the policy it, in turn, informs) emphasizes the importance of money and aggregate demand in determining inflation. It focuses crucially on two notions: the single general price level and the consumer price index used to estimate it. The most important critique of the neoclassical theory of inflation is that the analytical use of the notion of a single price level ignores or downplays the various different ways in which the relative price inflation of particular goods comes about. The critiques also show that that the policy imperative of targeting inflation should not only come from regulating the money supply, but must also look at the various particular ways that persistent price increases of various goods occur.

On the one hand, the use of a weighting mechanism and a consumer price index in general fails to capture the differences in consumption patterns over the income distribution. Weeks notes that the more unequal the income distribution, the greater the number of households below the average, and thus the greater the extent to which the consumer price index will fail to capture the average will fail to capture the consumption patterns and percentage weightings of expenditure in the various categories of consumer goods.

Secondly, as Weeks notes, a weakness of focusing on the general price level is an inability to analyse the different processes involved in determining prices of different commodities. In addition, contracts, global markets and other factors affect the ability to affect prices and this inflation (Weeks, 2011, pg. 7). For example, the existence of contracts poses a problem for the neoclassical inflation policy. Monetary policy is limited in its ability to influence contracts and other non-spot market mechanisms that govern price.

Finally, a monetary approach to inflation suffers from that heterodox approaches commonly comment on in orthodox theories. Orthodox theories and models are intended to describe the real world but are extrapolations from simplifying assumptions. Thus, particular market structures and other relevant historical, political and social factors are not included in these models, and ultimately in policy. However, as will be demonstrated the historical, political and social factors that determine price formation in South Africa's agricultural markets create a unique situation that requires particular analysis.

Statistical and methodologies issues in the calculation of South Africa's consumer price index

The price level in an economy is measured via a consumer price index. The methodology used to construct a particular type of consumer price index that describes the general price level is the second type of problem mentioned by Weeks. As Oosthuizen and others note, (although constituting international best practice) various elements of the methodology used to calculate South Africa's consumer price index cause the consumer price index to not reflect the inflation experiences of the poor in the best way possible. The most salient aspects (explored in more detail in subsequent chapters) include so-called 'plutocratic bias', various income and expenditure measurement challenges and price data collection challenges across various spheres.

Firstly, 'plutocratic bias' is a phenomenon that arises in economies with high income inequality. Consumer expenditure weights are meant to "represent the proportions of consumption expenditure by households in a specific period". (Statistics South Africa, 2013, p. 8) Plutocratic bias, and the resultant plutocratic gap, occurs because South Africa's consumer price index uses plutocratic weights. The weighting in the index for a particular item (e.g. paraffin) is determined by dividing the sum of all households' expenditure on paraffin by the sum of all households' expenditure on all goods and services. The weighting of paraffin (or any other consumption good or service) is the share of the former sum in the latter sum. The use of plutocratic weights causes the weight or 'influence' of a given household on the consumer price index to be based on the household with lower total consumption expenditures. Thus, there is a bias against the effect of price increases faced by poor households since their total expenditure is

lower for particular items- even if the effect of the price increase is significant relative to the household.

The ability of consumer price indexes to capture the inflation experiences is also made difficult by quality and nature of the survey data collected. The lack of availability of rural price data (since data on only certain food items and other items can be gathered for rural areas) and data from informal traders cause official CPI figures possibly under-represent the inflation experiences of the poor. (See Statistics SA, 2014)

Inflation experiences of the poor in South Africa

Some work has been undertaken order to understand the inflation experiences of the poor. (Oosthuizen, 2007) and (Oosthuizen, 2013) find that inflation rates differ across income levels. The food price inflation experiences of South Africans are highly varied- different groups within society have significantly differing inflation experiences. Oosthuizen (2007) used democratic weightings (as opposed to plutocratic weightings) while Oosthuizen (2013) created group-specific indices based on various policy-relevant groups. Noting the differences in inflation experiences is important because both the historical and expected inflation rates are key variables in influencing wage increases in South Africa's extensive collective bargaining system, for determining minimum wages in sectoral determinations, and for determining the nominal increases in various social grants. (Oosthuizen, 2013, pp. 2-3) As Oosthuizen notes, the focus on poor households is important, since poor households arguably less able to reduce their exposure to or mitigate the negative effects of inflation. (Oosthuizen, 2007, p. 2)

Differences in inflation experiences can be found across income levels, and across various other categories including demographic, labour market or other characteristics. This is because demographic and locational factors, income and spending patterns depend on and determine each other. Thus, movements in spending patterns and associated movements in prices of consumer goods will vary systematically with these biases. For example, in the food group, according to his 2008 research, mealie meal and brown and whole-wheat bread, poultry, beef, and veal (along with paraffin and electricity) were responsible for about 34.5 percent of income decile 1 inflation and 26.9 percent of income decile 4 inflation. Both Oosthuizen (2007) covering January 1998 and December 2008 and Oosthuizen (2013) covering January 1997 and December

2008.show that food, housing and transport and household fuel & power usually feature in the largest components of household expenditure across income groups and other poor-policy-relevant groups. (Oosthuizen 2007, pg. 58)

Oosthuizen (2013) specifically constructed group-specific inflation rates for policy relevant groups viz. grant recipient households, unskilled worker households, unionised worker households, public and private sector worker households, formal and informal sector worker households, households with unemployed members, and households with children. This analysis found that two major groups emerged. The group with grant recipient households, unskilled worker households, informal sector worker households, unemployed households and households with children exhibited significant deviation for all-urban inflation rate trends. This group's monthly year-on-year inflation rates were considerably more volatile and were statistically significantly different weight structures. In addition, it is the relative poverty of these groups that causes these differences in inflation rate, rather than specific behavioural differences in consumption. Oosthuizen (2013, pg. 39) also admits that an important analysis that could not be carried out in the research was the comparison of the inflation rate of rural households.

Finn et al (2014) gives a comprehensive overview of the impact of differential price movement on poverty and inequality measurements. Finn et al (2014) aimed to evaluate the trends and evolution of both money-metric and non-money-metric poverty and inequality in South Africa, as well as the impact of prices on this. This emerged from the lack of reference to and treatment prices within the extensive literature on poverty and inequality in South Africa. The research provided a thorough analysis of the role of (or the lack of) education and other factors in the pervasive labour market failure in South Africa that has been the prime cause of the persistence of poverty and inequality throughout the post-apartheid period.

Finn et al (2014)'s findings about the impact of differential prices on poverty are as follows. The research found that the price data was relatively promising (with some important constraints) while the expenditure data (which was drawn from national surveys such as the Income and Expenditure Surveys and the Living Condition Surveys) had serious issues that severely hampered comparisons across time (Finn et al. 2014,

pg. 35). Of the expenditure survey data that was comparable, it was found that for the 2005-10 period, price/poverty decompositions and price/inequality decompositions it was found that both growth and redistribution were pro-poor (*ibid*). Importantly, it was found that (income) percentile-specific price indices dampened improvements in poverty levels. In addition, "the inflation rates for poorer households typically exceeded those of better households" Finn et al. note that this experience of higher inflation rates by poor households is to "over-exposure" (Finn et al, 2014, pg. 32) to relatively high inflation items (and the converse under-exposure to relatively low inflation items). This means that there is both a 'size of relative weight' effect and a 'consumption item price pattern" effect that causes the poor to face difficult relative inflation. Food is the prime contender for both effects.

An extremely important implication of their decomposition work was that "some of the increase of the expenditures of the poor do not signal an increase in the consumption and therefore in real well-being but rather an increase in the cost of the same consumption bundle." Ascertaining which of these two options holds in various cases, and the extent and causes of this is an important research question.

Poverty in South Africa and the precarious nature of employment in South Africa

The question of the inflation experiences of the poor (and specifically in South Africa) is ultimately important because of the rampant poverty, unemployment and inequality faced by the country. There are a number of dimensions to poverty and deprivation, which reinforce the importance of understanding food price inflation (and poor inflation in general). Inequality and poverty status are dependent on race, gender, wages and employment status, levels of education and in the residual historical legacies related to apartheid specific to region and urban or rural living (Gelb, 2003). Work by Forslund (2013) and others illustrates that poverty in South Africa does not merely reflect lack of income. Forms of deprivation in South Africa extend to lack of access to services, limited asset endowments and limited access to agricultural inputs and livelihood strategies.

Many scholars also stress the intimate link and ultimate overlap between poverty and unemployment. Barchiesi's (2012) notion of precarious employment in post 1994

employment is particularly relevant. Barchiesi argues that post 1994 has been characterized by employment insecurity and low incomes, such that official measures of employment and unemployment fail to capture levels of poverty because of the insecure and exploitative nature of employment in much of South Africa and sub-Saharan Africa. Put differently, it is the case that the precarious nature of employment in South Africa means that those who are formally (or informally) employed must not be treated as the non-poor- and so the same concerns over welfare and poverty (of which inflation forms an integral part) must consider such things as the evolution of wages and working conditions and their connections (if any) to the inflation experiences of the poor.

The political economy of food in South Africa

The uncovering of alleged collusive behaviour by companies in food-related industries such as the bread, milling, dairy and poultry has increased suspicions at the Competition Commission about possible collusion, abuse of dominance and other anti-competitive behaviour in the entire food chain. (Rakhudu, 2008). According to the Competition Commission, there are a few markers of anti-competitive market structure such as market concentration and high barriers to entry. The agro-food chain is characterized by high levels of concentration and vertical integration by a few major firms. The manufacture and supply of inputs such as fertilizer exhibits high levels of concentrations as does processing, packaging and retail.

Barriers to entry into the agricultural value chains include the importance of research and biotechnology in the provision of seeds, and economies of scale in other major inputs such as fertilizer. Access to prime retail space, capital outlay, retailing experience; suitable sites for new stores are also barriers to entry into the value chain. In addition, many agricultural products that form part of the inputs for the foodstuffs consumed by poor South Africans are traded as commodities and thus form part of complex, international global value chains, making preventative and corrective interventions against food price inflation more difficult.

Global and local agro-food chains face global challenges and undergoing structural changes. Food chains are “collective links of production, processing and distribution of food” (Kirsten, 2012) Challenges include food safety risks, food quality and preservation issues, food losses, protecting integrity and value propositions, threats from climate

instability, societal concerns about the carbon footprint related to the distribution of food (Kirsten, 2012). Concerns over food chains also feed into discussions about agricultural reform and investment, urban and rural food security.

In particular to the issue of food security, the problems of resource depletion, price volatility, diet changes, the concentration of the food chain, increased competition via globalization, demographic transition and urbanization, crop land acquisition. Of these issues, the concentration of South Africa's food chain may be one of the bigger issues affecting food price inflation that affects poor South Africans.

Beyond these basic barriers to entry, the conditions in South Africa have included state's withdrawal from the agricultural sector, the effects of liberalization, and the entrenchment of anticompetitive behaviour. The liberalization of agricultural markets has made it the case that large integrated companies have taken over the role of governing the production and supply of many important food products and agricultural inputs (Roberts, 2011, pg. 12). Competition law (through the Competition Commission) has been successful in uncovering extensive cartel conduct in food and agricultural products market.

The state's involvement in the agriculture and food chain included regulation of prices and marketing and large-scale subsiding of white farmers through agricultural co-operatives and financing of other agriculture-related infrastructure including silo storage facilities, processing and packaging facilities and railway infrastructure. (Roberts, 2011) The state also regulated the movement, pricing, quality standards and marketing supply of the majority of agricultural production in South Africa. About 80% of agricultural production in South Africa was subject to these controls.

With liberalization and the withdrawal of the state from the agricultural sector in the 1990s, and the post liberalization period were able there was a "dramatic change" in commercial agriculture which lead to restructuring. The South African Futures Exchange was set up for the trading of agricultural commodities. In turn, co-operatives were converted into private companies and consolidated into large agro-processing entities, commodity trades and suppliers of farming requisites. (Roberts, 2011). This decline points to the increase in dependence on imports of agricultural output, and by

implication, exposure to the international market and foreign prices. There have been other aspects to this general decline.

At the other end of the agro-food sector is the retail sector. There is evidence from the competition law around the Massmart mergers in South Africa and from local study of the international phenomenon "Big Food" (Igumbor, et al., 2012) that the retail sector in South Africa shows levels of market concentration and market power. "Big Food" refers to those large commercial entities that dominate the food and beverage environment. According to Igumbor, et al. these entities are becoming increasingly more widespread and remain a threat to smaller food entities. The market power of "Big Food" is supported by the 'combined processes of rapid urbanisation, concentration of ownership of food production and distribution and globalisation of the food trade, since many of these food companies are actually headquartered in Europe and North America. (Igumbor, et al., 2012, p. 6).

In addition to policy and regulation that directly affects the food and agricultural sectors, it is important to examine policy responses that focus on the effects of food price increases on the poor. Kirsten (2012) finds that the policy responses towards the food price inflation of the early 2000s were slow and limited. These responses included little more beyond the appointment of the Food Price Monitoring Committee (FPMC) in 2003 and immediate relief measures for the most needy and poorest households. They also included a few partial interventions related to market information and anti-competitive behaviour by food manufacturers and retail chains. However, South Africa's social welfare programmes and policy around food and agricultural sector did not change substantively. (Kirsten, 2012, pp. 17-18)

Conclusion and emergent questions

The literature on food price inflation highlights a number of areas of investigation that are explored and answered in the research report. Firstly, literature on the collection on data relevant to food price inflation exposes a number of important research sub-questions. The first is that general data and analyses of consumption and inflation show that the basket of consumption items consumed by households varies according to

economic and related variables like income and geographic location. Analyses of food price inflation must begin with understanding what foods the poor actually consume and what, and to critically assess the methodologies used to identify. This discussion is taken up in chapter 4: Identifying key food staples. Following this a general overview of food price trends is conducted in chapter 5: Food Price Trends in South Africa.

The 2008 food price inflation crisis was caused a number of international factors, but its particular effects in various countries was dependent on domestic factors such as supply and demand constraints and domestic policy. Further, South Africa's own particular integration with and exposure to world markets and the unique characteristics of its agricultural markets must be understood in order to understand to gauge how the global food price inflation crisis affected it. Further, the point of studying food price inflation is embedded in other important debates around the South African economy, and the welfare of its poor. The relative weight of food in the poor consumption basket means understanding this means understanding an important portion of the general inflation experiences of the poor. This discussion is covered in Chapter Six on the political economy of food in South Africa.

In turn, the general inflation experiences of the poor require closer investigation because of their link to poverty and the poor's socioeconomic welfare and wellbeing. Within this point about the general inflation experiences of the poor, lie important areas of investigation. One involves how poor inflation is measured, and is linked to how poverty in general is measured, especially in South Africa. Specifically within the ambit of food price inflation faced by the poor, an investigation into identification of key food staples and their price trends is important as preliminary step. And finally, these findings must feed back into recommendations and policies for the various stakeholders and a synthesized big picture must be obtained in order to recommend appropriate policy.

Chapter Three: Methodology

Introduction

The literature review has outlined the many reasons why studying food price inflation is important. This section gives an account of the research methodology employed for the main tasks undertaken in this research report; viz. the identification of food staples, and trends in food prices. The research methodology is a mixture of both qualitative and quantitative methods.

An original research intention of this research report was to investigate the best way to understand the food price inflation experiences of the poor. Various attempts were made to ascertain the best methods to do so. One attempt investigated was the construction of an original price index, using a sufficiently representative sample set of poor households and the detailing of their price data. This proved to be far too ambitious for the scope of this research report, this view being ascertained after consultation with various institutions dealing with measurements of either food or basic necessities. This would be due to the capacity requirements to do so. Another avenue investigated was the use of Statistics South Africa price data and consumption data. The investigation along this line also found that attempting to do so would also require significant statistical capacity.

Two main research scopes/areas were settled on: an investigation into the methodologies of various institutions in order to identify most rigorously basic foods consumed by the poor; and an analysis of food price trends with the best data available.

The qualitative data include various reports and policy documents from a variety of institutions on strategies and issues related to the measurement of food staples and food prices. The research report draws heavily from published reports of institutions that work in understanding and quantifying data on food price inflation and poverty. The main contribution of the research report is to synthesize available information to identify the adequacies of these measurement techniques. Further, the research report aims to identify where further research needs to be undertaken and explain the areas in which this research needs to be undertaken and the kind of key interventions that need to be made.

The quantitative data used were drawn from a variety of sources, but most importantly from published and unpublished consumer price index data received from Statistics South Africa. These were received from Statistics South Africa officials. Other data was received from the National Agricultural Marketing Council, and the National Labour and Economic Development Institute (NALEDI) based at COSATU. These data were obtained upon request from key informants from these institutions or from publicly available publications or online data repositories. Specifically, the data presented in the substantive chapter five are data of selected published Consumer Price Index series, published by Statistics South Africa related to various demographic markers of poverty.

The overall constraint that informs this methodology has been the amount of research of this type conducted in South Africa as well as the availability of the appropriate data. These issues are dealt with at length in the body of the research report.

Chapter Four: Identifying Key Food Staples

Introduction

What are key food staples? What is the point of investigating them? This chapter gives an overview of the purposes and aims of and methodologies used in food staple measurement programmes of various institutions working in South Africa. The chapter briefly reviews the various successes and challenges of these programmes, and illustrates what key food staples have been identified by two of the institutions each.

What is a food staple?

The Food and Agricultural Organisation of the United Nations (FAO) defines a food staple as "one that is eaten regularly and in such quantities as to constitute the dominant part of the diet and supply a major proportion of energy and nutrient needs." (Food and Agriculture Organisation of the United Nations, 2014, p. 1) According to the FAO, world staple foods can be grouped into the major groups of: cereals, roots and tubers, animal products (meat, fish, milk, eggs) plant based products (fruits, vegetables, pulses, nuts) as well as the group of oils, fats and sugars.

All food staples share some common characteristics. Food staples are foods consumed by a certain group, due to their availability, affordability, their nutritional value, the ease with which they are produced, their availability, as well as cultural and social factors that determine food consumption, influenced by the above. In turn, each of these factors depends on factors such as culture & religion, climate & geography, agricultural development and agro-food systems and levels of economic development. However, what any particular institution or entity deems a key food staple is dependent on the purpose for which the food staple is identified.

The purpose, research questions & methodology and identifying key food staples

Some institutions that have developed methodologies to measure food prices include the United Nations agency called the Food and Agriculture Organisation, South Africa's principal statistical governmental agency Statistics SA, The Food Price Monitoring Committee at the National Agricultural Marketing Committee, and the South

African NGO Studies in Poverty & Inequality Institute (SPII). Amongst the reasons for doing this are issues in welfare, purchasing power and nutrition and important issues of food security and food sovereignty and for the general understanding of the economy-wide inflation. SPII has not published its data and findings at time of writing, but the methodology is still pertinent.

Food Price Index (Food and Agricultural Organisation of the United Nations)

The Food and Agricultural Organisation (FAO) of publishes an international Food Price Index as well as a Global Food Security Index. The FAO's Food Price Index (FFPI) was introduced in 1996 in order to help monitor the developments in the global agricultural commodity markets. (Food and Agricultural Organisation of the United Nations, 2014) The index falls within the broader mandate of the FAO to eradicate hunger, raise levels of nutrition, improve agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy." In particular, the FFPI is popularly used as a measure of potential food security concerns for vulnerable developing countries.

This internationally-based Food Price Index consists of the average of 5 commodity group price indices, weighted with the average export shares of each of the groups for the base period years 2002-2004. There are five sub-indices covering meat, dairy, cereals and vegetable oil and sugar with a total of 73 price quotations considered by FAO commodity specialists as representing the international prices of the food commodities included in the group. The base period price for each of the commodities is the average price for the years 2002-2004.

The FFPI gives a comprehensive picture of trends in global commodity price inflation. This is useful due to the high levels of economic and trade integration. Since the FFPI is best at giving a global picture of inflation, data obtained from this index can be used to assess international macroeconomic factors that influence global commodities such as speculation in global financial markets as well as the strength of the US dollar.

The corollary challenge is that due to the index's extensive coverage, divergent trends in food prices for different countries that occur due to different levels of income and agricultural development are suppressed. Further, the index uses import and

export data which may be far removed from household weights and patterns due to the price formulation dynamics within any particular economy.

Studies in Poverty and Inequality Institute Basic Needs Basket & Decent Living Levels

The Studies in Poverty and Inequality Institute began work on a basic needs basket research study that aimed to evaluate the dynamics of issues of cost of living, access to social protection and coping mechanisms of low-income households in the Vaal region of Gauteng. The research was intended to provide insight on what constituted the basic needs and how these needs were met in line in terms of the value of a life of dignity for all South Africans, in line with the Constitution of South Africa**.** (Studies in Poverty and Inequality, 2015) This research was in line with other work conducted by SPII that emphasizes multifaceted approaches to understanding poverty and the accurate gauging of need and the extent of coverage of the social protection safety net. The Basic Needs Basket study aimed to evaluate poor people's access to various basic goods and services, covered by the South African Constitution such as access to housing, water, sanitation and health care.

SPII has tracked basic food prices from selected formal and informal markets, sampled through a random sampling of 3 major retail areas around Gauteng, in low cost retail areas and two informal markets. Data is collected to account for retail price specials, and the price collection methodology uses both retail price methodologies.

The SPII Basic Needs Study is informed by an understanding of the contested state of the concept of 'poverty', and the various vagaries that accompany its conceptualisation, definition and measurement. This framework chiefly recognises that the elements, discourses and narratives of poverty are not neatly aligned; ofttimes involve conflicting and contradictory assumptions: exhibiting an "inherent 'messiness'" and are as such not appropriately dealt with narrow methodologies or excessively academic or semantic argumentation**.** Definitions of poverty must also be theoretically robust, apply to the context they arise in, and take seriously their applications to and uses (or misuses) in political, economic and social development discourse and policy. Much of the impetus for interrogating the concept of poverty and the emergent finding of the 'inherently messy' nature of the concept of poverty arose as a counter-narrative to the arrival in

2005 of statistics based 'official' measures of poverty as the policy instrument used in government interventions into poverty alleviation and social development policy.

Consumer Price Index for Food (Statistics South Africa)

The aim and purpose of the Consumer Price Index is both to be a measure of the price inflation that the 'average' household in South Africa faces, but also to measure the level of general inflation in the country. The Consumer Price Index is used by all types of private and public consumers. The Reserve Bank uses the inflation rate as given by the headline CPI to conduct inflation targeting monetary policy. The CPI for Food is an important and interesting component of the overall CPI. The CPI for Food is excluded from the overall CPI to obtain a measure of 'core inflation'- this is due to the high volatility of food prices which can distort the underlying inflationary trends.

The 'national' South African CPI usually refers to headline CPI which aims to measure overall inflation in the country. There are, in fact, a number of consumer price indices, which take into account. Stats SA publishes a variety of baskets in the CPI. The 2013 CPI had a total of 31 indices for different index areas, including each primary urban area (large town or city), secondary urban area (smaller town) and rural area in each province.

Statistics South Africa collects information on South African food staples using information from the Income and Expenditure Surveys. The Consumer Price Index is an indicator that measures changes over time on the general price level of consumer goods and services acquired and consumed by South African households. The consumer price index aims to measure two things. First, it is a fixed-basket price index since it measures the cost of a basket of goods and services whose proportional weights are fixed across a specified time period. The Consumer Price Index also aims to measure the effects of price changes on the cost of achieving a constant standard of living. This is what is called a cost of living index.

Critical literature on the South African CPIs remains sparse. Vink, Kirsten and Woermann (2004) concede that the CPI-Food is an important indicator for poverty since food is the single largest category in the basket consumed by the poor. However, despite Stats SA's extensive efforts (such as to meet international standards of statistical and methodological rigour, Vink et al argued that three critical problems remain a

challenge for the CPI-Food. Firstly, Stats SA does not have an adequate definition of rural areas. Secondly, no provision is planned for sales through informal sector outlets, and thirdly, no provision was made for food consumed away from home. The CPI has since found solutions to these particular problems.

Statistics SA follows the general international best practice outlined in the ILO manual for conducting construction of consumer price indexes, by using utilising a number of sources. The ILO manual on consumer price indices notes that the CPI is treated as a key indicator of economic performance in most countries (International Labour Organisation, 2010, p. 33) According to the manual, other primary uses of consumer price indices in the indexation of monetary flows such as wages, rents, interest or taxes.

The CPI obtains information on South African consumption patterns from various sources. These include the Income and Expenditure Surveys and Household Expenditure Surveys (HES), national accounts, retail sales data, point of purchase surveys, scanner data, and population censuses. The Consumer Price Index uses the Income and Expenditure Survey to construct weights for the various items. Due to the fact that the Income and Expenditure Survey is conducted using a questionnaire and dairy-recall method, the IES may over- or under-report certain expenditures, other sources such as private household consumption expenditure accounts of the GDP, sectoral surveys conducted by Stats SA of the retail, motor trade and food and beverages industries and various industry sources.

The type of statistical price indices has implications for whether a consumer price index can under-represents and over-represents cost of goods. Consumer price indices cannot, as a matter of practicality, compile expenditure weights for every period (called the reference period) for which corresponding prices can be collected. The South African CPI uses a Laspeyres-type index, where the weights are based in a historical period. Consumer price indices are usually Laspeyres, Paasche or Fisher indices. Both Laspeyres and Paasche indices are so-called “fixed-weight” indices using only one reference period, with Laspeyres indices using a historical reference period and Paasche indices using the expenditure weights of current period to calculate inflation in any current period. A common criticism of both is that since consumers typically

respond to changes in relative prices, and assuming prices generally move upward, Paasche indices tend to underestimate inflation (since they use the weights of the current period) whereas Laspeyres indices tend to overestimate inflation.

In addition, both Fischer and Laspeyres price indices are cost-of goods price indices. There are two main methodologies for determining food staples viz. cost of goods approaches and cost of living approaches. Cost of goods approaches aggregate total expenditure on product items for a population group, and those with the largest shares are included in the theoretical 'consumption basket' of consumer price indices. The reasoning is plausible, since product items with a greater total expenditure are those that are purchased most often and thus are of a greater economic significance to consumers as a whole.

Cost of goods indices are contrasted with cost of living indices. Both types of indices track changes in the cost of goods and services that are actually purchased by consumers, yet a true cost of living index aims to track the cost of goods and services that achieve a certain "utility level" or "standard of living". The conceptual and practical difficulties in actually producing this type of index are manifold. Conceptually, there is the problem of defining this "standard of living" non-arbitrarily, and incorporating the multitude of social and economic factors that can be argued as contributing to consumer well-being. For example, it is very difficult to conceptualise the proper treatment of public goods like safety and education, as well as other broad concerns such as health, environmental quality, water quality and crime. Further, even if these conceptual concerns were to be resolved, practical constraints of data collection and measurement make a complete cost-of-living index difficult to compute and measure.

A problem of using income and expenditure weights is that total expenditure, which is made of price and quantity. Since quantity is a negative function of price changes in price induce changes in quantity that may distort the actual importance of a necessity item. There are over 300 items. Given this type of variation across product type, and across product brands and sizes within those product types, Statistic SA uses a variety of averages and imputations.

Data collection: food item problems, rural price collection data

An important challenge for the CPI is the difficulty of collecting rural price data. Literature of the CPI-Food places this as quite the challenge for previous versions of the CPI and subsequent versions have made provisions to analyse rural price versions. In some instances, the expenditure values given for rural households will simply be merged with urban prices, where the corresponding rural prices are unavailable. Some rural prices are collected as regularly as possible (mostly general dealers and smaller informal outlets.) Interestingly, it has been found that many rural households conduct a significant proportion of their purchases in urban areas, through individual travel, or through savings schemes to these areas. These are included in the rural CPI since they are the purchases of rural households albeit in urban areas. An area for further research would be the overall effective cost of this that factors in cost of transport and any other relevant factors.

Another challenge found in the literature is the challenge of accounting for purchases of food made away from home. As mentioned before, in the calculation of the expenditure weight for food, an adjustment for the informal sector component is added to the initial weight derived by the Income and Expenditure Survey.

Expenditure weights are derived from a variety of sources but chiefly from the Income and Expenditure Survey. This survey is conducted every five years and tracks the income and expenditure. The latest survey is from 2010/2011. IES survey gather information on consumption expenditure through a two-week long questionnaire where respondents are asked to report on the items they consume and the monetary value spent on these items. This included the description of the item, value, source, purpose, area of purchase and the type of retailer the item was purchased from. As mentioned before, there are problems with the dairy method. All dairy based questionnaires run the risk of participant fatigue, inaccuracies due to instruction misunderstanding.

Statistics South Africa's published CPI data uses December 2012 as the base period. This means the value of the index is 100 in this month and the comparisons between price changes are effectively changes relative to this period. New weights are introduced every couple of years from successive household expenditure surveys, and occasionally new products are introduced into the general basket of goods and services.

These actions effectively constitute a new index and a measure must be taken to ensure continuity and comparability between old sets and new sets of indices.

Some of the challenges involved in this rebasing procedure involve preserving the historical rates of change, deciding on an appropriate base period (i.e. when all indices equal 100), ensuring that the comparability of price movements before and after the linking period is maintained and maintaining additivity through all levels of aggregation.

Food Price Monitoring Committee

The Food Price Monitoring Committee conducted an extensive review of food prices in South Africa because of the bout of food price increases observed in 2002. An important part of the Food Price Monitoring Committee's methodology was assessment of the differences between prices of food in rural, peri-urban and urban committees. The data from the main data sources measuring food price trends is urban-biased.

The Food Price Monitoring Committee was appointed by the South African government with the intent to monitor food price inflation due to escalating food prices began occurring in 2002. The background to the establishment of this Committee was an extensive report on the price formulation of food prices by Vink and Kirsten (2002).

The Committee was put together to conduct a four step process that analysed the political economy of food in South Africa and the main food supply value chains. The first step involved getting an understanding of the structure of the main food supply chains at various stages (with respect to numbers, distribution, and concentration). The second stage of the analysis of was determining price formation of the major commodity markets such as maize, wheat, sunflower seed, beef, rice and sugar.

The third stage of the analysis analysed the prices of these commodities “beyond the farm gate” and analysed the further costs associated with value-adding (including processing, packaging, distribution.) Lastly, the Committee assessed the extent to which market power and market concentration. The Committee had an extensive range of data sources. The data sources included SAFEX spot prices for grain, industry averages from industry Chambers, food companies that supplied valuable data on costs in the food

chain, various industry organisations and associations and Statistics South Africa. The committee also had an extensive consultation process with the public.

The Food Price Monitoring has measured price evolution of 26 food products. Food price inflation differs across different commodity groups, across geographic regions, specifically the rural-urban areas, and across income groups. Each of these different ways of unpacking food price inflation uncovers various elements. The 2004 report focused especially on the lack of available data in remote rural areas.

The 2004 report lead to the Food Price Monitoring Committee's publishing the Food Cost Review annually and the Food Price Monitor monthly covering the same themes and methodology. These publications report on trends in the prices of agricultural input prices, the price trends of key agricultural commodities, and each issue reports on selected issues relevant to the food economy e.g. food security, food systems, food policy and others. This is part of the general strategy to comprehensively uncover as much information and knowledge of each part of the food supply value chains.

A section of the 2004 report covers interesting trends that emerge when the CPI-Food for is unpacked across different commodity groups, across the rural- urban divide, and across different income groups. In the period after deregulation of agricultural economy in South Africa, (around July 1996) the different commodity groups also start to show greater upward trends, as well as greater levels of volatility.

With respect to the areas that data was collected for, the rural areas faced higher levels of food price inflation due to their food acquisition strategies. As far as possible, rural households would attempt to buy food items in urban areas and incur transport costs to return with them to rural areas. However, at times, rural households would have to cover shortfalls in food supply by purchasing food from the local rural retailers which charged higher prices due to distance from urban centres. In the majority of cases studied, rural households had little or no "own-grown" food supplies.

National Income Dynamics Survey (NIDS)

The National Income Dynamics Survey is the first national household panel study in South Africa, and is implemented by the Southern Africa Labour and Development Research Unit (SALDRU). The study began in 2008 with a nationally representative

sample of over 28 000 individuals in 7300 households across the country, tracking the same households and individuals over time.

The National Income Dynamics Survey Waves 1, 2 & 3 are collections of data collected from 2008, 2010 and 2012. These data waves covered various themes in poverty & well-being; household composition and structure; fertility and mortality; migration; labour market participation and economic activity; human capital formation, health and education; vulnerability and social capital. (National Income Dynamics Survey, 2015)

The NIDS uses a panel study methodology. This means that the survey tracks the same households and respondents over time, to chart how these respondents income and expenditure habits change over time. The NIDS surveys collected food and non-food expenditure data at the household level. The expenditure section of the questionnaire listed 32 items of food expenditure and 53 items of non-food expenditure. The questionnaire probed monetary values of what households *spent,* received as *gifts*, the value received as *payment* and the value from *own production* on particular food items.

Mhlongo and Daniels (2013) investigated food expenditure patterns in South Africa based on the NIDS data. This is done by calculating a national Engel's curve, which illustrates Engel's Law that proportions spent on food fall with income. The data used was from all three of the "waves" of NIDS surveys.

This analysis showed that in Wave 1 and Wave 2, the Engel curve took a quadratic form: food expenditure briefly rose compared to income level, and then fell with income level for the greater part. Further, in Wave 1 there was less variation about the overall downward trajectory in food expenditure, while in Waves 2 and 3 there is increasing variation about the trend. In Wave 2, far more high-expenditure households also spend close to all of their expenditure on food. According to Mhlongo and Daniels (2013), the trend persisted in Wave 3, suggesting that middle-class households also shifted spending away from other essential goods and services towards food. This is "likely a reflection of the high levels of food-price inflation in South Africa (and, indeed, globally) over the past few years."

Table 1: Food stapLes MEASUREMENT

Institution	Measurement	Value/Achievements	Challenge
Food and Agricultural Organisation	FAO Food Price Index	Gives a comprehensive view of global inflation trends	Uses export and import data, which fail to capture in country dynamics
Statistics South Africa	Consumer Price Index for Food	Gives general overview of food inflation trends	Subject to plutocratic bias; collection of expenditure data and price data are collected separately
NIDS	NIDS Panel Data Survey	NIDS surveys tracks households over time and can track the changes in expenditure patterns as households change.	Only expenditure data is collected, not correspondent price data.
SPII/JCTR	Basic Needs Basket	Tracks the household level dynamics of food price inflation.	Very difficult to implement. Household dynamics could vary.

Source: Statistics SA (2014), Studies in Poverty and Inequality Institute (2014), National Income Dynamics Survey (2014)

Summary & Conclusion

The project of identifying food staples in South Africa has been undertaken by a number of institutions. A comparison is summarised above. The CPI-Food undertakes the largest, most comprehensive study of food, (and thus food staples) and is the best measure and source of data for analysing overall trends in food price inflation. As mentioned above, there are a number of statistical and methodological challenges to using the CPI-Food as the only measure of how food price inflation affects the poor, due generally to the size and scope of the CPI and CPI for Food. Even using the CPIs of particular product groups (such as bread and cereals) may not address the inherent biases of the CPIs in reflecting (food) consumption and inflation faced by the poor. The Food Cost Review and Food Price Monitor Publications of the Food Price Monitoring Committee give a compact but comprehensive view of the background context of food price inflation in general, and especially of food staples which are consumed by the poor in South Africa. The primary virtue of this work is to illustrate the various sites of policy intervention that may be used to countering food price inflation.

The NIDS data is useful since it tracks the dynamics and proportions of food and other expenditure for specific households over time, giving a closer, more focused look to how these dynamics change than the other comparable surveys such as the Income and Expenditure Survey. The NIDS dataset however does not include price data and so cannot be used to make substantive conclusions related to food price inflation.

The Basic Needs Basket Studies conducted by SPII tell a more comprehensive story than the other datasets and publications since the others remain silent on many contextual factors that are relevant to understanding food price inflation and how it affects poverty.

Table 2: Food price monitoring committee 2004 report list of 26 monitored food products

2.5kg White Sugar250g Margarine; 750ml Sunflower Oil; 410g Peanut Butter; White Bread; Brown Bread; 250g Tea Leaves; 250g Instant Coffee; 2.5 kg and 12.5 kg Maize Meal; 1kg Samp; Stewing Beef/kg; Bananas/kg; 2kg Rice; 2.5kg White Sugar; 1 litre Milk; Chicken/kg; 1 Doz. Eggs; 425g Pilchards; Potatoes/kg; Onions/kg; Tomatoes/kg; Apples/kg;' Oranges/kg; Sugar Beans (500g); Butter beans (500g); Sorghum meal;

Source: The Food Price Monitoring Committee 2004 Report

Table 3: selected product cpi series

Food and non-alcoholic beverages; Food; Bread and cereals; Meat; Fish; Milk, eggs and cheese; **Oils and fats**; Fruit; Vegetables; Sugar, sweets and desserts; Other Food; Non-alcoholic Beverages; Hot Beverages; Cold Beverages.

Source: Statistics SA (2014)

Chapter Five: Food Prices trends in South Africa

Introduction

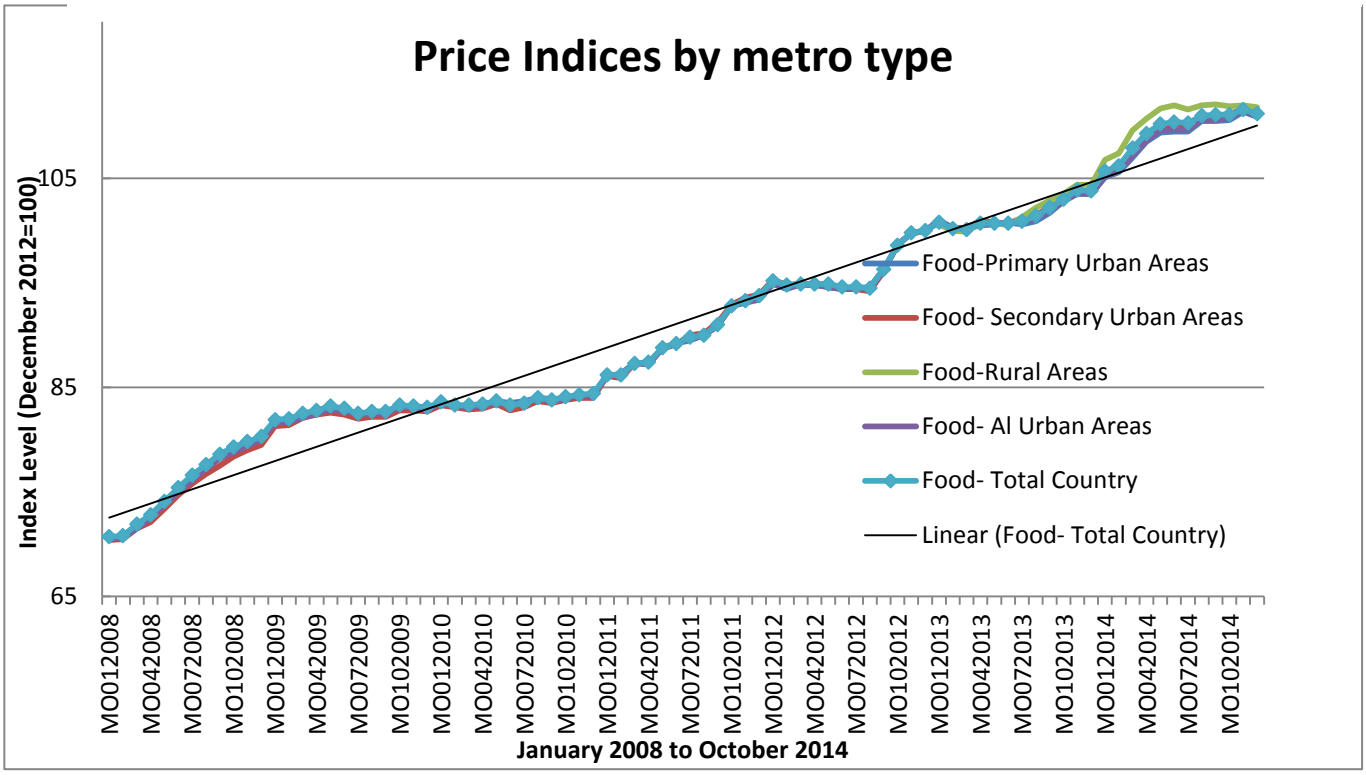
This chapter makes a detailed analysis of Statistics South Africa data on food prices and trends. The analysis of consumer price indices and how the various indices give information on the food price inflation and how it affects the poor.

Statistics South Africa publishes 31 consumer price indices. These are divided up into geographical areas, urban/rural areas, by product type, by income level and for other special purposes. This chapter shows that for these various types of CPIs, those correlated with poverty show higher price inflation, and in turn food prices are correlated to poor prices. Other trends that can be shown from the published consumer price indices are trends in the volatility of certain items or comparison of the inflation patterns of different food groups or via some other characteristics.

Consumer Price Indices show the rate of change of a set of prices of items consumed by a certain reference group. This change is relative to a reference period. When consumer price indices are expressed in index form (as opposed to percentage form) they show comparative levels at which prices are at a certain, relative to the base period. As such, consumer price indices are chiefly measures of price evolutions (that is, evolutions of a certain group of prices) and remain silent on such things as quantity or the price elasticity of demand or supply.

South Africa, unlike a few other countries, has not undergone severe inflation or price movements. This is due to relative economic stability and importantly due to the hegemony of an inflation-targeting monetary policy regime. Graphically, this is shown by the fact that deviations in the indices rarely exceed the range of about 20 index points above and below the reference level of 100. Thus, the 'amplified' range used to graphically illustrate the consumer price indices is used to better illustrate the characteristics of the trends.

Figure 1: Price indices by metro



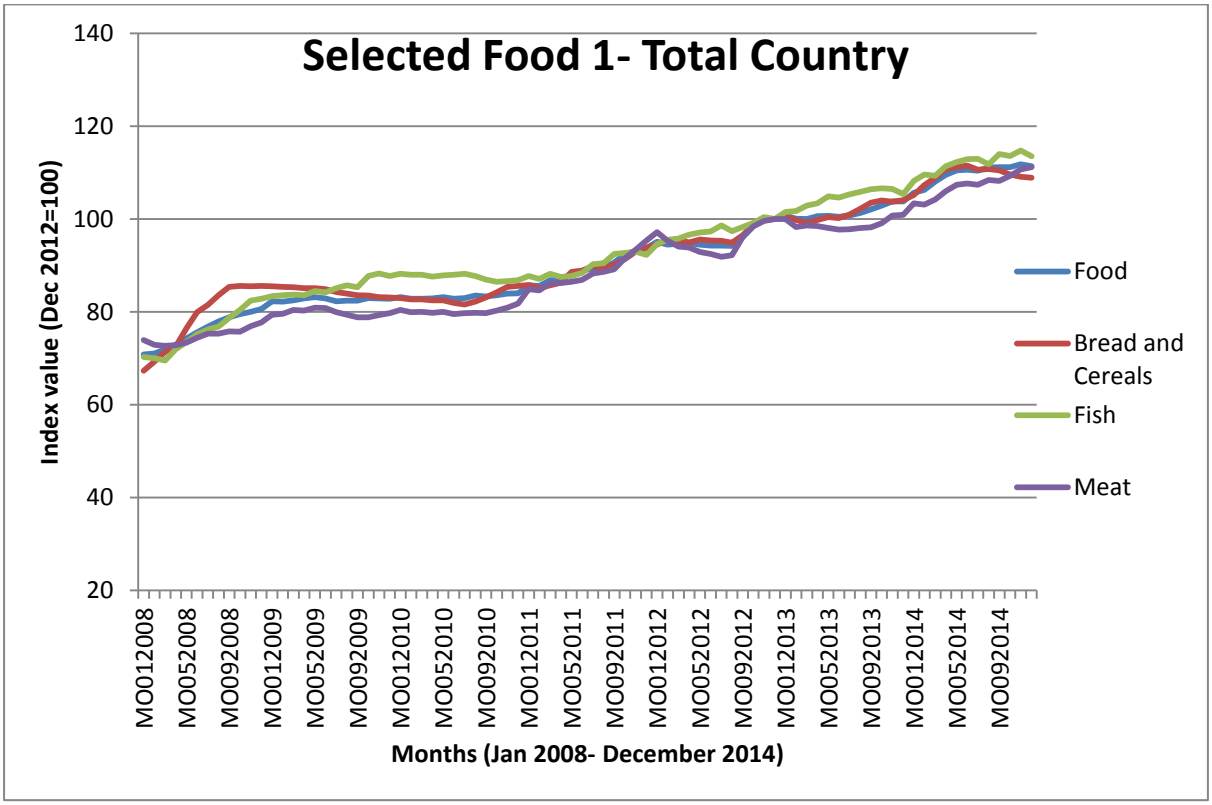
Source: Statistics South Africa, 2015

Food price indices are shown for the various metro classifications used by Statistics South Africa. Primary urban areas are the collection of the larger metros, including such places as the City of Johannesburg, eThekwini, Tshwane and the City of Cape Town. Secondary urban areas include major towns. The set of indices for primary urban areas and secondary urban areas are available for January 2008, whereas indices for rural areas only begin from January 2013. As the graph shows, both the primary urban areas and secondary urban areas show extremely similar price trends. However, rural areas experiences slightly higher price inflation, with a slighter higher rate of acceleration over 2014, which seems to return to the general trend, from the period of January 2013.

These patterns can be explained by factors that distinguish both consumers and food systems in rural areas. Rural areas, especially in South Africa, are characterised by, in part by geography and apartheid history, by underdevelopment, low levels of infrastructural investment, and distance from other areas of human settlement. This results in both the poverty of rural food consumers as well as severe failures of food systems to provide food.

Selected Food Price Indices- Total Country (Food; Bread and Cereals; Fish; Meat)

Figure 2: Price Indices by Food: Selection 1-Total country



Consumer Price Indices are published for major food groups in South Africa. These are bread and cereals; meat; fish; milk, eggs and cheese; oils and fats; fruit; vegetables; sugar, sweets and deserts; and other food.

Total Country Price Indices give an estimation of overall inflationary trends. The indices for bread & cereals showed rapid, higher than average price inflation for 2008 and 2009, until the prices of this product group settled and began to show a more stable upward trend. The fact that the overall Food Index lies between the other indices, shows that none of the trends dominates substantially. The Meat Index shows slightly deeper peaks and troughs, such that price changes in this product do not change as often as the others, but when they do, exhibit more pronounced changes. All the indices indicated an underlying upward trend in prices for all product types

The price indices of Food; Dairy (milk, eggs and cheese) Oils and Fats; Fruit; Vegetables, and Other Food reveal a number of interesting trends. For example, Oils and Fats demonstrate less volatile swings (that is the changes are less rapid from time period to time period) over the whole period. On the other hand, Fruit shows much more volatile period to period changes. This however, is not more rapid upward shift in prices. Vegetable shows the same type of price volatility. Other Food seems to have a relatively stable and consistent upward shift. The general Food price index (almost hidden right in the middle) indicates that overall inflationary trends in food show a steady, consistent increase for the period.

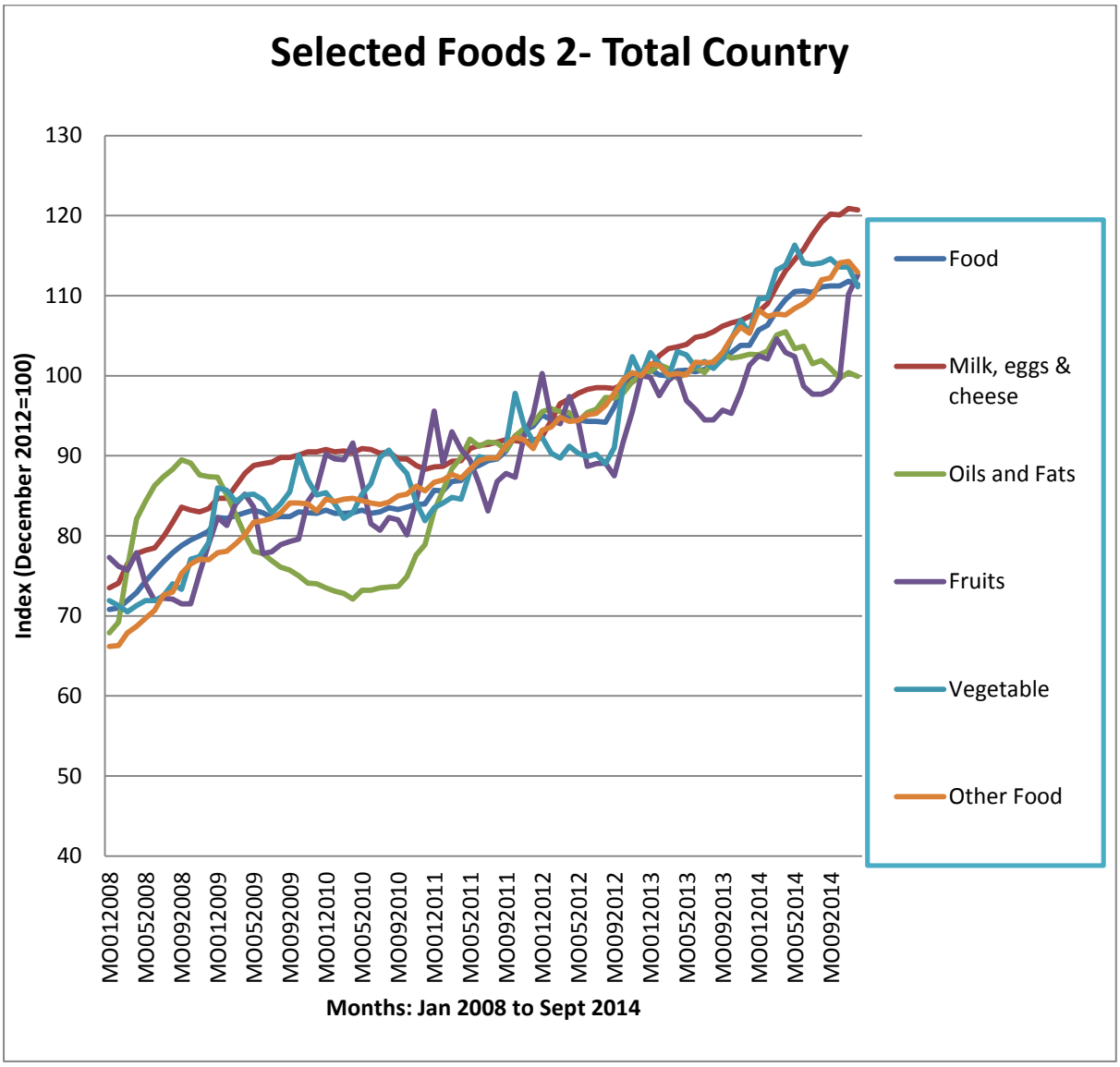


Figure 3: Price Indices by Food: Selection 2-Total country

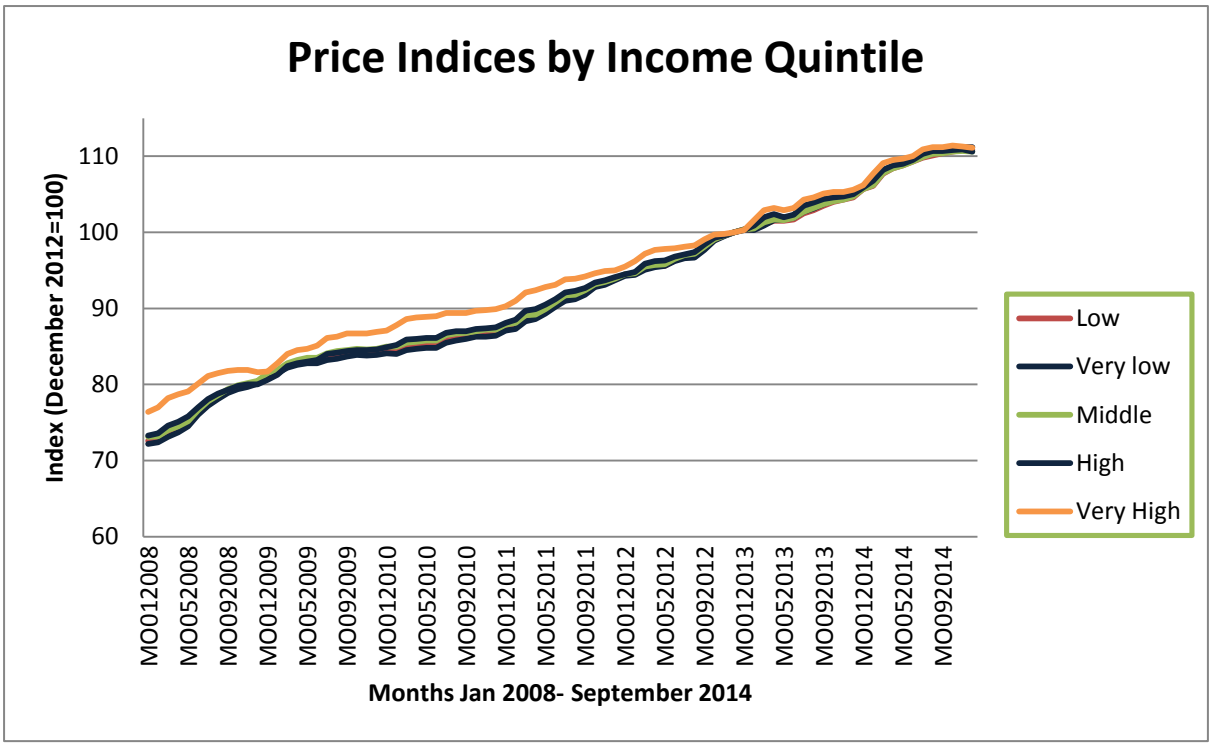


Figure 4: Price Indices by Income Decile

Source: Statistics South Africa

Income earners in South Africa can be divided into five equally sized groups according to income. The inflation dynamics of those in the lowest earning fifth is represented by the "Low" curve (in orange). The graph illustrates that those in the lowest-earning income quintile, face an overall higher rate of inflation than other groups, since it is above the other graphs. In addition, it shows the predictable upward trend indicating consistent price inflation. According to the graph, the other income quintiles face much more similar overall price inflation trends to each other, compared to the Low income quintile. The Low Income quintile, albeit for a few deviations, displays an almost symmetrical trend (it rises and falls with the same pattern) with the other income quintiles.

Conclusion

The selected price indices show various types of price trends- overall trends, region-specific trends and rough estimates of volatility. Price indices correlated to poverty, such as the rural price index is correlated to more rapid inflation. All price indices show

upward trends meaning, over the long term, are prices are increasing. Short term increases in index slopes such as in Bread and Cereals over 2008, shows that higher than average rapid inflation for some product groups for some periods occurs. Some product groups show more consistent patterns such as the monthly volatility of Fish, Fruit and Vegetables.

A deeper understanding of the causes of food price inflation, in light of the literature, requires looking various factors that produce these trends. The ultimate causes that cause the persistent upward trend of price inflation, those that cause month to month volatility in prices of some product types and those that cause the poor to suffer higher levels of inflation need to be examined.

Expenditure Shares

An analysis of expenditure share data shows a number of interesting trends. The expenditure shares of individual food items can be made for both 2008 and 2012, the years in which Income and Expenditure Surveys were conducted, even though final shares used by Statistics South Africa in publishing the Consumer Price Indices are computed using a variety of other sources. The complete list can be found in the Appendix. The shares are expressed for food items only, in order to compute an approximation of food staples. The quintile expenditure shares described here are the total expenditure on a food item made by households in that quintile expressed as a percentage of total quintile expenditure (on all items) or total quintile expenditure on food. For example, The top food item in 2008 Quintile 1 food expenditure was Porridge (pap or maize) and constituted 10.28% of total food expenditure made by Income Quintile 1 households in 2008. The geographic locale expenditure shares are the individual expenditure shares for individual food items as a percentage of total expenditure of total geographic locale expenditure in one column, or total food expenditure of total geographic locale in the other column. For example, the top food item by expenditure share for 2008 Primary Urban Areas was

To be noted is that the food item expenditures expressed are in actual fact aggregated expenditures of various similar food items ranging across various brands. That is, the expenditure item Eggs refers to the aggregate expenditure spent on all types of eggs across various brands and quality of eggs. The implication for the analysis is that

it is not possible to see which individual brands were consumed more, for example, and what proportion of various brands was achieved. There also is exists some problems in comparability between the two since the 2008 data has fewer items than the 2012.

Expenditure Shares by Income Quintile

Food expenditure shares by quintile shares further illustrate trends confirmed by the literature. For both years, the lower income quintiles (Quintiles 1 & 2) show a much higher concentration on of cumulative expenditure on a fewer amount of items. For 2008, the top twenty Quintile 1 items already occupied 53.85% of food expenditure.

The breakdown of expenditure shares for individual food items in 2008 shows a number of interesting data trends. For Quintile 1 expenditure, the top ten food items were (in descending order) were porridge, white sugar, brown bread, frozen chicken portions, fresh chicken portions, white bread, rice, and fresh potatoes, eggs and sunflower oil. For Quintile 2, the top ten food item by expenditure item were (in descending order) were porridge, white sugar, brown bread, fresh chicken portions, frozen chicken portions, white bread, rice and fresh potatoes, sunflower oil and eggs. As can be seen, the top ten items for Quintile 1 and Quintile 2 are roughly the same, save for the difference in order with the last two items.

As one goes higher through the income quintiles, the individual share of the top food item becomes smaller and smaller. The top expenditure food item for Quintile 1, porridge, occupies 10.28% of that quintile's total food expenditure, whereas the top food item for Quintile 5, fresh lamb chops, occupies 5% of those quintiles. This is also the case more generally.

The data for 2012 includes a higher total number of food items, and so the calculated shares are generally lower for each item overall. For example, the food item measured as 'Porridge' in 2008 viz. pap or maize meal was separated into two food items viz. Special Maize and Super Maize, which differ on the account of their prices and nutritional value. For Quintile 1, brown bread, special maize, frozen chicken portions, fresh chicken portions, white bread, rice, white sugar, sunflower oil, beef-combined and fresh potatoes round up (in descending order) the top ten products. For Quintile 2,

special maize, frozen chicken portions, a loaf of brown bread, fresh chicken portions, rice, combined beef, white sugar, white bread, sunflower oil and fresh potatoes (in order) make up the top ten items. As expected, the items that make up the top lists for the higher items change, and the rank order of the items also changes as one progresses higher up the income quintiles. Meat items start to move up the rank orders, with Beef-combined occupying the top position for the two highest income quintiles.

A number of interesting trends about food consumption may be tentatively drawn from these findings. For both data sets, there are no radical changes in the food items that occupy the top ten positions in the bottom three income quintiles and the visible changes in top ten composition occur for the two higher quintiles. However, those items that dominate the top ten items in the lower income quintiles do not completely fall away in the higher quintiles. Possible explanations for this, which cannot be confirmed with this data alone, could have interesting implications for understanding food price inflation. The fact that some items maintain dominance across income quintiles may be because of factors along the food system of provision that mean that only a relatively limited set of foods are widely available for all households (that is, popular retailers carry only those foods) or because of cultural factors that determine consumption of those foods.

For both the 2008 and 2012 data sets, the higher income quintiles have item expenditure shares that are relatively smaller than in lower income quintiles. This implies that overall expenditure is more evenly spread out across a wider set of individual items in the higher income quintiles, and overall expenditure is "bunched up" amongst a fewer spread of items for the lower income quintiles. For example, the highest single food item expenditure share, (i.e. the top single food item) for each quintile ranged between 8% and 9% of total food expenditure. For the lower income quintiles, around the top seven or eight food items were all individually above 3% of expenditure each. This contrasts with the higher income quintiles, where only the top three or four items were individually above 3% and the rest each occupied lower individual shares, implying that consumption is more spread out. As mentioned before, there is some difficulty in comparing results between data sets, since some items are changed or removed.

Expenditure Shares by Geographic Locale

The expenditure share analysis can also be conducted for the 2008 and 2012 data sets according to the different geographic locales that expenditure data are collected for. Data are collected from primary urban areas, secondary urban areas, as well as rural areas. The measure 'all urban areas' is the sum of all primary and secondary urban areas. These classifications differ markedly from the quintile expenditure share since there is no equal demarcation of households Also, geographic factors that the literature stresses are relevant to the dynamics of systems of food provision, which would cause disparities in the results, are more likely to show up in geographic locale data. The individual food item expenditure shares illustrated are the total expenditures spent by households collectively in a geographic locale on an individual food item, as a percentage of the food expenditure share of all the households of the geographic locale in one column, and the total expenditure of the geographic locale in another.

For the 2008 data set, primary urban areas and secondary urban areas show similar trends. The top ten items for primary urban areas are (in order) brown bread, white bread, porridge, rice, fresh beef rump steak, fresh beef brisket, fresh beef chuck, fresh T-bone steak, and beef mince and cake. For the secondary urban areas, the same items occur, with the difference that porridge moves to the top of the rank order. The top item for primary urban areas only occupies 5.41% of total food expenditure, and for secondary urban areas the top item has a share of 4.86%, yet for rural areas the top item occupies a share of 10.21%.

Rural areas show a drastic change from the other two geographic locales. The top ten food items for rural areas in 2008 were porridge, white sugar, brown bread, fresh chicken portions, frozen chicken portions, white bread, rice, fresh potatoes, sunflower oil and cake flour. The top item, porridge, interestingly has a share that is nearly double the next item, which is only 5.95%

For the 2012 data, the top ten items for primary urban areas were, in order: beef-combined, brown bread, frozen chicken portion, white bread, and sausage. Fresh chicken portions, fresh full cream milk, special maize, bottle of fizzy drink, and rice. For secondary urban areas, the top ten items are brown bread, white bread, special maize, rice, cake flour, cereal, super maize, cakes and tarts, bread flour & sweet biscuits. Unlike

the 2008 data, there is actually a difference between the top foods in primary urban areas and secondary urban areas.

Rural areas had the following top ten items (in order) beef-combined, frozen chicken portions, brown bread, white bread, sausage, chicken portions, fresh chicken portions, special maize, fresh full cream milk, bottled fizzy drinks, and rice. In line with the observations made above, the expenditure shares for the rural areas have slightly higher shares than (such as 8.23% for beef-combined and 6.38% for frozen chicken portions, compared with secondary urban areas.

Chapter Six: The Political Economy of Food in South Africa

Introduction

The purpose of this chapter is to give an indication of the relationships between various aspects and entities of the political economy of food and how each relates to the prices of food in South Africa. This chapter will show these factors; following Vink and Kirsten (2002), cause or potentially cause upward trends on prices. Since extensive work has and is being done in analysing the drivers of price trends along the South African food chain, this chapter distils the key drivers of these, and reflects on how the overall picture of trends can be related to dealing with food price inflations. The prevalence of these issues briefly highlights the importance of tackling food price inflation, even though each of these issues must be studied in more depth.

Global Value Chains

The emergent 'global value chain' literature argues that trade and production of goods and services is increasingly becoming organised along 'chains' of successive sites of value adding, where these sites of production and value adding occur in different countries.

The global value chain literature grew out of the earlier global commodities chains literature. The global value chains literature provides the insight that since the various economic activities that any particular good or service undergoes are fragmented and diverse in location and type, economic theory and policy that seeks to understand and governs this type of production and companies and corporations must take this into account. The influence and power of multinational corporations has grown as global value chains have increased due to the difficulties faced by national governments in enacting legal and other governance. As will be demonstrated later, South Africa's own food supply is a well-integrated with international markets. This global value chains thinking can be applied to agribusiness, as shown by (Humphreys, 2006)

Primary agriculture was traditionally been very important for South African economy, and although it is a relatively small share of GDP, it remains a significant provider of employment, especially in the rural areas. (SA National Department of Agriculture, Forestry and Fisheries, 2013, p. 4) The sector underwent a number of significant reforms in the 1990s, particularly after 1994, due to the change in the

national government dispensation and a series of crisis in the sector. Part of the problems that face the industry are such issues as scarcity of water resources, desertification, soil erosion, soaring input costs and population growth

Before 1994, the sector was controlled by so-called agricultural marketing boards. These marketing boards were statutory bodies that regulated almost every aspect of each value chains.

After 1994, the most significant event to affect the structure of the agricultural sector was the deregulation of the marketing sector to bring it in line with the social economic democratisation of the most important aspects of South Africa's political economy of food, liberalisation, globalisation, privatisation and food systems are important for understanding price formulation in South Africa. An explanation of how each of these contributes to upward trends in food prices is given.

The subsequent overview of some issues and aspects in the political economy of food assumes certain relationships between liberalisation, financialisation, and market power to price formulation. All these aspects reflect an underlying a neoclassical economic theoretical and policy framework that favours price formulation being undertaken in the market. This is coupled with a pulling back of government intervention within the sector since 1994.

Selected food value chains

This section gives an overview of The National Agricultural Marketing Council conducts analysis of various selected foods, through the Food Cost Review and Food Price Monitoring Committee over data that covers a number of years. Key food value chains include the red meat, wheat-to-bread value chain, the maize-to-maize meal value chain, the dairy value chain, the sunflower value chain, the sugar value chain, the potatoes value chain and the dry beans value chain. The 2004 Food Price Monitoring Report of 2004 (NAMC. 2004) monthly Food Price Monitor publications. Some of the measures include farm to retail price spreads (FTRPS) and real average farm value shares.

The farm value share is the value of the farm product's equivalent in the final food product purchased by the consumers. The FTRPS is the difference between what the

consumer pays for the food product at retail level and the value of the farm product used in that product (National Agricultural Marketing Council, 2012, p. 2)

The stylised structure of the value chains involves primary farmers, processors (such as millers in the wheat and maize value chains, and abattoirs in the meat value chain) and retailers. Key prices that are measured along the value chains are as follows. The producer price (also known as the farm gate price) is the SAFEX spot price minus the average transport differential and handling costs. There are also transport costs from the farm gate to the silo. Handling costs are reported from processors. There are further packaging and related costs incurred after processing, and in then end final transport costs and the retail mark-up. Naturally, specific value chains, due to constraints such as hygiene, different types of storage costs and other factors are relevant in specific value chains. The details of these costs are extensively covered in the Reports.

Concentration of business in the food value chain

There are a number of measures of concentration in the agricultural sector in South Africa. In assessing concentration of global value chains, Humphreys (2006, pg. 37) notes that in recent years, different forms of concentration have emerged. Input supplier concentration, consumer outlet concentration. Humphreys argues that concentration along a value chain matters for two important reasons- since concentration at one level gives rise to concentration at other levels, and because concentration at particular points in the value chain creates oligopolies and inequalities in market power (Humphrey, 2006 pg. 36).

From international experience, concentration leading to further concentration is illustrated in food by cases where the development of large plants by food processors had backward linkage affects, leading to the development of suppliers to those food processors. (Humphreys, 2006, pg.36) This occurs for three main reasons,. One, the economies of scale that favoured large processing plants may also occur upstream in the value chain, favouring the scaling up of suppliers. Secondly, the fact that the efficiency of large plants requires continuous processing which in turn requires large-scale supply. This large-scale supply, in turn, is best achieved and coordinated when there is a limited number of large scale suppliers. Finally, a similar logic is at play with regards to the

achievement of consistent input quality. These may be summarised as the economies of scale in production and economies of scale in co-ordination. Concentration that obeys the logic detailed above leads (almost naturally) to market power, which is the more direct link to price formulation.

Privatisation

Private sector involvement in southern Africa's spans across all the ends of South Africa's agricultural sector and food value chains. Private sector involvement in Southern Africa includes different roles played by producers (agro-food dealers) agro-food processors, and supermarkets amongst others (Acquaye, 2012). These players play key functions in the infrastructure and supply chains sub-Saharan agricultural markets. Agro-food dealers provide have the primary function of facilitating activities such increasing demand for agricultural commodities, providing financing mechanisms such as crop insurance. Agro-food processing companies transform primary agricultural products into consumable commodities. According to Acquaye (2012, pg. 22) 10% of South Africa's GDP comes from agro-processing activities. However, 10% of the agro-processing are responsible for 70% of industry turnover. Supermarkets and the rest of the retail industry also play another important role on the agro-food chain- the one most directly connected to price. There has been a rapid increase in the market share and spread of supermarket chains in South Africa. The largest supermarket chains include Shoprite and Massmart (the first and third largest groups respectively). Part of the role they play includes meeting demands that extend from growing urbanisation and population growth, and the growth of an increasing middle class.

Liberalisation & financialisation of South Africa's s agricultural sector

Liberalisation and financialisation of the agricultural sector are treated together since they have played a joint role. Liberalisation refers to policy that facilitates the removal. Trade liberalisation in South Africa refers to the process that occurred from about the early 1980s to early 1998. (Vink, Kirsten and Tregurtha, 2002, p. 1) As with other forms of liberalisation, the move to liberalise trade came with the advent of democracy and South Africa's urgency to re-enter the world markets after apartheid exclusion. This was inspired by South Africa's domestic economic environment, with a

decline in economic performance due to the isolation and economic instability that characterised the transition period.

An overview of how the discussed aspects of South Africa's political economy of food and how price formulation occurs shows the complex relationship of entities. One emergent view is that liberalisation, privatisation, financialisation, and both vertical and horizontal consolidation of commercial elements in South Africa's trends bodes well for South African food prices. This view emphasises the positive effects of increased food supply capacity. Liberalisation and financialisation incentives investment into food systems and food chains, thus ensuring at least the stability of supply. This view emphasizes the positive economies to scale that occur with higher levels of concentration especially in the supermarket/retail sections of the food value chain, where these economies of scale facilitate lower prices.

Implications for prices of the political economy of food

Some key findings of reviews of the political economy of food give some key recommendations. The general landscape is that, in agreement with the international literature, final consumer prices are formulated by a variety of internally and externally affected prices.

Some of these prices such as those set in financial markets. The value chain analysis of various food chains conducted over the last decades shows that prices are determined in various places along the value chain, with those places exhibiting concentrated market power.

Privatisation has a possible duel effect on prices that must be explored with much more depth. Local agriculture is dominated by domestic capitalists. On the one hand, it seems that the private sector and private enterprise has the tendency to employ greater efficiency measures, can exploit economies of scale and scope and have greater access to infrastructure and investment. In many cases, there is greater concentration of business precisely because smaller enterprises cannot compete with the larger firms who are more efficient. This is good for prices. However, the negative side to concentration or an anti-competitive environment is the risk of collusion. There has already been evidence of this in the bread industries. The important implication for

policy, then, is all though private enterprises are able to drive costs down, the market power they yield may.

Trade liberalisation allows the country to benefit through specialisation, and to meet aggregate demand when local supply is hampered for whatever reason. However, trade liberalisation (when it is coupled by financialisation) exposes the country to potentially pernicious international financial flows.

Chapter Seven: Conclusion

The research report has aimed to discuss a number of key elements to food price inflation and how it affects the poor. The research report discussed the picture that international trends spurned in 2008 and showed that various countries experience food price inflations for different reasons. The international and local literature shows that there are a complex set of factors that must be taken into consideration.

The tools for measuring food price inflation that currently exist make some important headway into understanding how poverty and food price inflation interact. Food price inflation affect the income poor and those in rural areas disproportionately more. The work of the Food Price Monitoring Committee and Statistics South Africa provides insight on how to measure food price inflation dynamics. The Food Price Monitoring Committee work shows that prices are determined at various areas on the food chain. Some of these prices, such as oil that factors into transport costs are externally determined. Other prices have a greater susceptibility to intervention. These are those prices that can be regulated through such instruments as the Competition Commission and other forms of price regulation.

Further, price data collection happens separately from expenditure collection. Since average prices are computed and then applied to aggregated expenditure shares, the particular details of whether the price dynamics at the poor household level remain unknown. This is especially pertinent for remote areas that may be experiencing higher food prices, increased by mark-ups and transport costs since products travel longer distances to reach poorer households.

The substantive chapters of the research report conducted three exercises: the identification of food staples in South Africa, an overview of food price trends using South African CPI data as well as a political economy overview meant to tease out some of the key recommendations related to the findings.

Chapter Four gave an extensive overview of the methodologies used by various organisations. It was found that each of the different methodologies had their own virtues. The FAO Food Price Index and the Statistics South Africa conduct a vast amount of price data and are very important tools to determine overall trends. However, both

use highly aggregated price data and are thus not optimal for focusing on specific patterns.

In addition, Chapter Four showed the potential weakness of consumer price indexes, especially those that do not correct for plutocratic bias.

Chapter Five deals with food price trends from published South African CPI series. The trends tend to confirm the findings of the literature review, in that those in poorer designations, as evidenced by metro-type or income quintile show slightly higher rates of relative inflation for the years covered. Chapter Five also interestingly shows that although certain food groups have shown a relative volatility over the period examined. Interestingly, it appears that across the income quintiles the rate of inflation for the lowest quintiles is only marginally higher for a few months. Chapter Five also provided an overview of the expenditure shares as they differ across the demographic designations and identified the individual foods that contribute the most to expenditure. Food items were amongst the highest consistently.
Chapter Six provided an overview of the key political economy matters such as privatisation and trade liberalisation that indicate that that an attempt to look at understanding food price inflation and how it affects the poor must also analyse how those prices are formed.

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