agriculture, forestry & fisheries

Department:
Agricultue, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

National Agricultural Marketing Council
Promoting market access for South African agriculture

Markets and Economic Research Center (MERC)

The South African Food Cost Review 2011

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Published by

THE NATIONAL AGRICULTURAL MARKETING COUNCIL

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and THE DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES

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This publication attempts to provide more insight into the complex factors driving commodity and food prices. This is the seventh publication of the South African Food Cost Review, emanating from the recommendations by the Food Pricing Monitoring Committee in 2003 to monitor food prices in South Africa on a regular basis.
The purpose of this publication is to reflect on food price trends during 2011.

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EXECUTIVE SUMMARY

REVIEW OF 2011

Various factors played a role in food and commodity prices during 2011. The combined price index of wheat, rice, corn and soybeans showed a sharp increase in the period between January 2011 and February 2011. This increase was due to importers of these commodities buying more aggressively to retain reserve stocks, prompted by crop damage in Australia due to climatic conditions and a drop in the estimated global ending stocks of grain. There was a drop in the price index between February 2011 and March 2011, due – among other factors – to the withdrawal of the grain import duty by the Russian government.

The dry conditions in China, the frost in Mexico and the drought in the USA that affected the hard red winter crop between March 2011 and May 2011 caused grain prices to increase. The lifting of the export ban by Russia in May 2011 caused a reduction in the grain prices, which remained so until the end of July 2011. This was coupled with the US$ appreciation. From August 2011, favourable weather conditions in Europe influenced the higher estimated global grain stocks, which resulted in a decrease in grain prices. This situation lasted until December 2011.

TRENDS IN AGRICULTURE, FORESTRY AND FISHERIES TRADE

In 2011, South Africa remained a net exporter of agricultural products, and hence the agricultural sector continued to be an important earner of foreign exchange. The value of agricultural exports amounted to R51.6 billion, while imports were valued at R46.0 billion in 2011. In 2011, South Africa exported more unprocessed agricultural products than it imported which resulted in a positive trade balance for unprocessed agricultural products. The value of exports of fisheries and forestry products exceeded that of imports into South Africa in 2011.

TRENDS IN INPUT COSTS

The farming requisite price index increased by 12.7% from 2010 to 2011, with the biggest increase of 12.9% being in the price of intermediate goods and services. The price of fertilizer, animal feed and fuel increased by 23.5%, 5.2% and 12.5% respectively from 2010 to 2011. The terms of trade for primary agriculture continued to decline in 2011.

The cost of food manufacturing is not just influenced by the price of raw commodities, but also by non-food inputs. The producer price index (PPI) for selected materials used in the food manufacturing process showed the following trends between 2010 and 2011:

- paper, pulp and paperboard products increased by 5.6%, and
- plastic products increased by 3.8%.

Non-food inputs that are used at almost all stages of the food value chain are inputs such as fuel, electricity, labour and water. All of these items fall within the category of administered and regulated prices, and showed the following price trends between 2010 and 2011:

- The regulated minimum wages for primary agriculture increased by 4.5% between 2010 and 2011.
- 0.05% sulphur diesel increased by 25.3% in Gauteng and by 25.3% at the coast.
- Electricity prices increased by 27.8%.

INFLATIONARY TRENDS FOR SELECTED FOOD ITEMS

The average Consumer Price Index (CPI) rate for 2011 was 5%, that is, 0.7 percentage points higher than that of 2011. On average the price increases were 0.7% higher in 2011 than in 2010. The food and non-alcoholic beverage index continued to increase when compared to 2010. The food and non-alcoholic beverages inflation contributed more to the headline inflation in 2011 compared to its contribution in 2010. The comparison of the CPI for food and non-alcoholic beverages in the different provinces shows that the Northern Cape, Western Cape and Eastern Cape experienced the highest food price increases during 2011.

A closer look at the price movements of the different food groups shows that fish, oils and fats, fruit and sugar, sweets and desserts had the largest price increases in 2011 compared to 2010, that is, prices increased of 20.88%, 10.87%, 9.72% and 6.85% respectively. The meat and milk, eggs and cheese price indices showed an increase of 5.84% and 5.49% respectively. Other food products showed an increase of 0.78% on average from 2010 to 2011. The index of prices for processed and unprocessed food products increased by 7.9% and 6.6% respectively on average from 2010 to 2011. The comparison between urban and rural food prices showed that, for a certain basket of goods, rural consumers paid R9.58 more than urban consumers.

TRENDS IN FARM VALUES AND THE FARM-TO-RETAIL PRICE SPREADS FOR SELECTED COMMODITIES

The margin between farm gate prices and the price the consumer pays for selected food items is a topic that is frequently debated. In order to better understand the difference between farm gate and retail prices, farm values of selected products and the farm-to-retail price spreads (FTRPS) were calculated. 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. Price spreads measure the aggregate contributions of food manufacturing, distribution, wholesaling and retailing firms that transform farm commodities into final products.

- Poultry: The real FTRPS of fresh whole chicken increased by 14.59% on average from 2010 to 2011. During the same period the real farm value share of fresh whole chicken decreased by 7.36% to 62.13%
- Beef: The real FTRPS of beef increased by 3.32% between 2010 and 2011 and reached R28.62 in December 2011, while the real farm value share increased by 5.26% and was at 46% in December 2011.
- Lamb: The real FTRPS of lamb increased by 17.85% between 2010 and 2011 and

the farm value share decreased by 1.32% on average during the same period.

- Pork: The real FTRPS of pork chops decreased by 23.8% between 2010 and 2011 while the farm value share increased by 1.43% on average between 2010 and 2011.
- Milk: The real FTRPS of milk decreased from 5% to 4.8% between 2010 and 2011. On the other hand, the farm value share of milk was on average 34.09% in 2011 compared to 34.54% in 2010. Between 2010 and 2011, the farm value share of milk deceased by 1.32%.
- Maize: Between 2010 and 2011, the average real farm value share of super and special maize meal increased from 35.96% to 51.8% and from 37.38% to 50.29%respectively. The real FTRPS for super maize meal increased from R2 244 per ton to R2 308 per ton (or 2.85%). The real FTRPS of special maize meal increased from R1 482 per ton to R1 755 per ton (or 18.42%).
- Wheat: The real farm value share for brown and white bread was 17.72% and 17.97% respectively for 2011. The real FTRPS for brown and white bread was R12 438.38 per ton and R13 042.88 per ton respectively.
- Vegetables: From 2010 to 2011 the average real FTRPS and real farm value share of different vegetables showed the following trends:
  - The real farm value share of cabbage decreased by 0.52% on average between 2010 and 2011, while the real FTRPS of cabbage increased by 0.96%.
  - The real FTRPS of onions increased by 1.34%, while the real farm value share of onions decreased by 14.68%.
  - The real FTRPS of tomatoes decreased by 5.25%, while the real farm value share of tomatoes increased by 1.32%.
  - The real FTRPS of potatoes decreased by 2.28%, while the real farm value share of potatoes decreased by 3.45%.

SELECTED TOPICS

With the publication of the Food Cost Review, a number of selected topics are discussed. These are (i) a profile of South African consumers and the impact of changing food prices on these consumers, (ii) a closer look at the middle class in South Africa and (iii) food security.

- **Profile of South African consumers and the impact of changing food prices on these consumers**

  South African consumers are characterised by class mobility, where they move to higher LSM groups as a result of economic growth and socioeconomic empowerment. There has been a dramatic decline in the share of the South African adult population classified in LSM 1 to LSM 3 between 2004 and 2011 (a 60% decrease), accompanied by an increase in the share of the adult population classified in LSM 4 to LSM 6 (a 22% increase), LSM 7 and LSM 8 (a 74% increase) and LSM 9 and LSM 10 (a 37% increase).

  Within the ambit of the aforementioned, the impact of increasing food prices on consumers was investigated. From January 2011 to January 2012 the cost of a basic food basket increased by about R54.78 (+14.3%) in nominal terms from

R383 to R438. The cost of this food basket, expressed as a share of the average monthly income of the poorest 30% of the population increased from 33.9% in January 2011 to 38.7% in January 2012, representing the highest share during this analysis period. The cost of the food basket expressed as a share of the average monthly income of the wealthiest 30% of the population increased from 2.7% to 3.1%.

- **A closer look at the middle class in South Africa**

From a food marketing point of view it is vitally important to understand class mobility since consumers' tastes and preferences will change as they move to higher LSM classes.

According to the findings of Stats SA's 2007 survey of South African middle class households between 1998 and 2006 there has been a significant increase in the percentage of all South African households with a middle-class standard of living, i.e. from 23% (1998-2000) to 26% (2004-2006). The study further shows that 85% of whites (approx 3.4 million people) and 75% of Indians (750 000 people) had a middle class standard of living. Coloured households with a middle-class standard of living increased from 41% in 1998-2006 to 48% in 2004-2006. The percentage of urban Black households with a middle-class standard of living rose from 15% to 22%, while almost no rural Black households had a middle-class standard of living. According to Van Aardt (2011), the number of people in the emerging Black middle class amounted to about 13.2 million in 2005.

- **Food Security**

Food security has, in recent years, come to the fore as a significant challenge globally, but in Africa in particular. Famine and malnutrition due to insufficient food intake are by no means new phenomena, however with international crises arising simultaneously in every area from finance to climate change, countries are taking stock of the caloric – and perhaps for the first time in history – the nutritional needs of their populations and evaluating the ability of existing value chains to meet those needs.

This section examines the fundamental right to food as recognised in international, regional and national law, with specific attention to the status quo in South Africa. The aim is to highlight what the right to food entails and what the obligations are, of government in particular, to see this right realised. The section then provides an overview of the status of household food security in South Africa to show strides made and also where gaps may exist.

Lastly the section summarises key steps proposed for realising the right to food for an ever growing number – and ultimately all – South Africans.

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ACRONYMS

AFF	Agricultural, Forestry and Fisheries
AMPS	All Media and Products Study
AMT	Agrimark Trends
BDI	Baltic Dry Index
CPI	Consumer Price Index
DAFF	Department of Agriculture, Forestry and Fisheries
DAP	Di-ammonium phosphate
DPME	Department of Performance Monitoring and Evaluation
EU	European Union
FAO	Food and Agricultural Organisation
FCR	Food Cost Review
FRPI	Farming Requisite Price Index
FTRPS	Farm-to-retail price spread
FSSA	Fertilizer Society of South Africa
Grain SA	Grain South Africa
GTA	Global Trade Atlas
ICESCR	International Covenant on Economic, Social and Cultural Rights
IEA	International Energy Association
IFA	International Fertilizer Industry Association
IFSS	Integrated Food Security Strategy
ITC	International Trade Centre
LSM	Living Standards Measure
MDG	Millenium Developmant Goals
MOP	Murate of potash
MPO	Milk Producers' Organization
MTSF	Medium Term Strategic Framework
NESOI	Not elsewhere specified or included
NFD	National Freight Database
USA	United States of America
UK	United Kingdom
PPI	Producer Price Index
SAARF	South African Advertising Research Foundation
SAFEX	South African Futures Exchange
SAGIS	South African Grain Information Service
SAMPRO	South African Milk Processors' Organization
SAPIA	South African Petroleum Industry Association
Stats SA	Statistics South Africa
SARB	South African Reserve Bank
SSA	Sub-Saharan Africa
SME	Small and medium enterprises
UAE	United Arab Emirates
UN	United Nations
VAT	Value Added Tax
WTA	World Trade Atlas

1 WHAT HAPPENED TO FOOD PRICES?

1.1 Global food price trends

The Food and Agricultural Organization (FAO) of the United Nations (UN) publishes the food price index on a monthly basis. The food price index consists of five commodity group price indices, namely the meat, dairy, cereals, oils and sugar price indices. These indices are weighted with the average export shares of each of the groups for 2002–2004. In total, 55 commodity quotations, considered by FAO commodity specialists as representing the international prices of the food commodities noted, are included in the overall index. Figure 1 shows the overall food price index from 2008 to 2011. The average FAO food price index for 2011 was 227 points, 42.3 points (22.8%) higher than the 2010 index. The overall food price index for 2011 was the highest index since the 2008 food price crisis, but it ended lower in December 2011 than in December 2010.

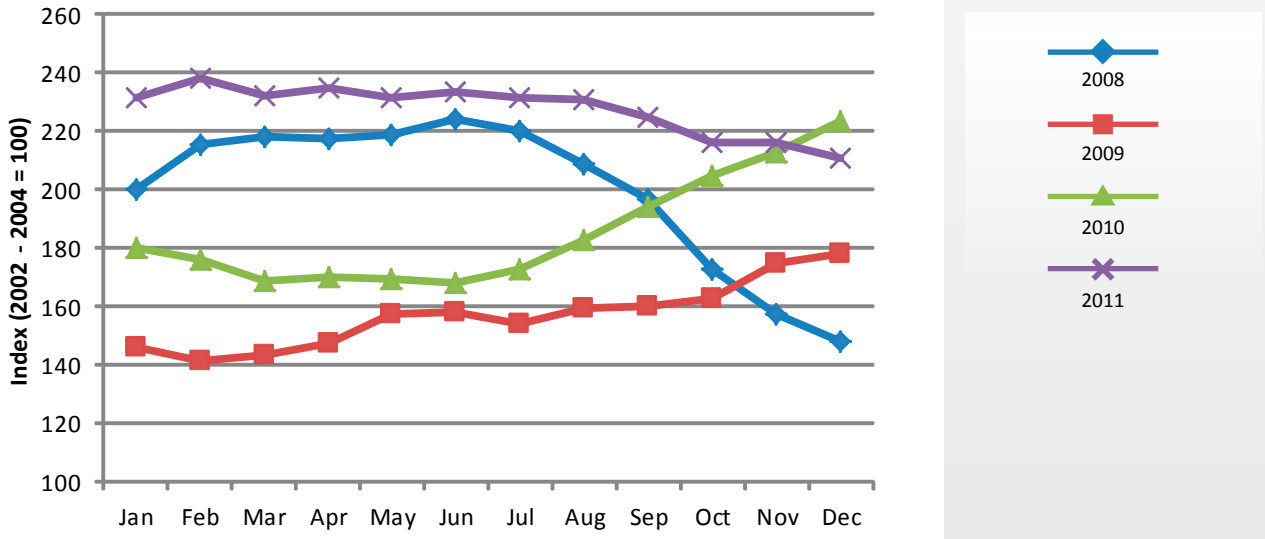


Figure 1: International food price index

Source: FAO, 2012

Figure 2 shows the international price indices for different food categories. Sugar and oils have the highest price indices when compared to cereals and dairy price indices. The cereal price index showed the largest increase between 2010 and 2011. The index increased from average of 180.5 index points in 2010 to an average of 246.8 index points in 2011, exhibiting a 36.74% increase. The dairy price index showed the smallest increase when compared to the other food categories, i.e., the index increased by 11.39% from an average of 198.0 index points in 2010 to an average of 220.5 index points in 2011.

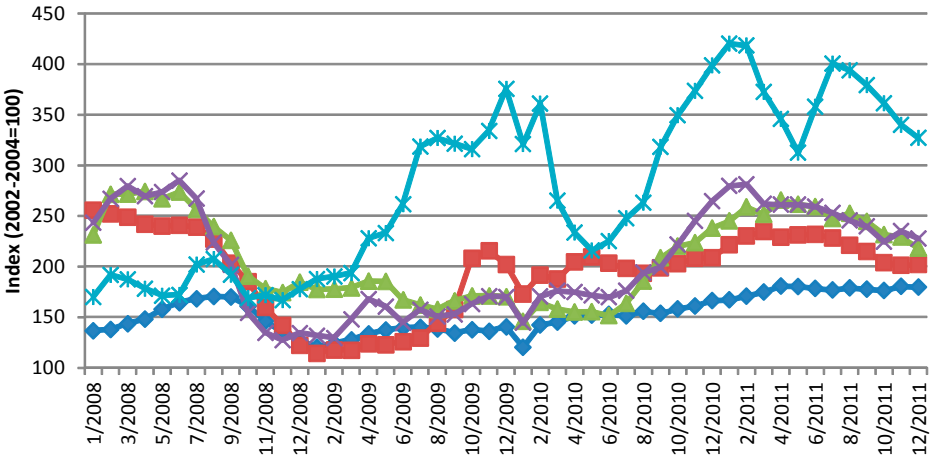


FIGURE 2: INTERNATIONAL PRICE INDICES FOR DIFFERENT FOOD CATEGORIES

Source: FAO, 2012

1.2 A REVIEW OF 2011

Various factors played a role in food and commodity prices during 2011. The combined price index of wheat, rice, corn and soybeans showed a sharp increase in the period between January 2011 and February 2011. This increase was due to importers of these commodities buying more aggressively to retain reserve stocks, prompted by crop damage in Australia due to climatic conditions and a drop in the estimated global ending stocks of grain. There was a drop in the price index between February 2011 and March 2011, due – among other factors – to the withdrawal of the grain import duty by the Russian government.

The dry conditions in China, the frost in Mexico and the drought in the USA that affected the hard red winter crop between March 2011 and May 2011 caused grain prices to increase. The lifting of the export ban by Russia in May 2011 caused a reduction in the grain prices, which remained so until the end of July 2011. This was coupled with the US$ appreciation. From August 2011, favourable weather conditions in Europe influenced the higher estimated global grain stocks, which resulted in a decrease in grain prices. This situation lasted until December 2011.

2 TRENDS IN AGRICULTURAL, FORESTRY AND FISHERIES TRADE

2.1 Agricultural, forestry and fisheries trade

The question of why countries trade sounds obvious but it is a tricky one to answer. In international economics, on the basis of both the partial and the general equilibrium, it can be concluded that countries are better off trading with each other than not trading at all. There is a vast amount of literature on this matter (starting with the mercantilists, up to Adam Smith and David Ricardo, and the New Trade Theory). At the centre of the reasoning behind trade are scarce resources and their distribution. Countries trade because scare resources are distributed unevenly between different countries. Thus, some countries are better at producing some products than others. International trade helps to even the distribution of resources. Countries can specialise in producing that which they are best at. It also helps countries to obtain products they might otherwise not have had access to. In brief, trade is beneficial to a country on two important grounds:

- It expands the range of available goods or services.
- It allows for efficiency gains.

As such, it is critical to look at global trade and South Africa's trade in agricultural products, as it has direct links to developmental issues, such as food security, job creation and foreign exchange earnings. Trade also impacts on international and local price trends.

2.2 World agricultural trade

South African Agricultural, Forestry and Fisheries (AFF) trade should be viewed in relation to global trade in AFF products. Figure 3 illustrates the value of world trade in AFF products and the share of South African AFF trade in global trade between 2001 and 2011. World AFF trade has increased by 160.8% from US$0.74 trillion to US$1.93 trillion between 2001 and 2011. The value of exports among the ten leading exporters of AFF products increased by 18.19% during 2011.

The share of South African AFF exports represented 0.50% of world AFF exports during 2011, and remained stable over the period under review. It had only receded to below average levels during 2006 and 2007 (Figure 3). The share of South African AFF imports represented 0.44% of world AFF imports during 2011. It increased from 0.27% to 0.42% between 2001 and 2007, but has remained stable since 2008.

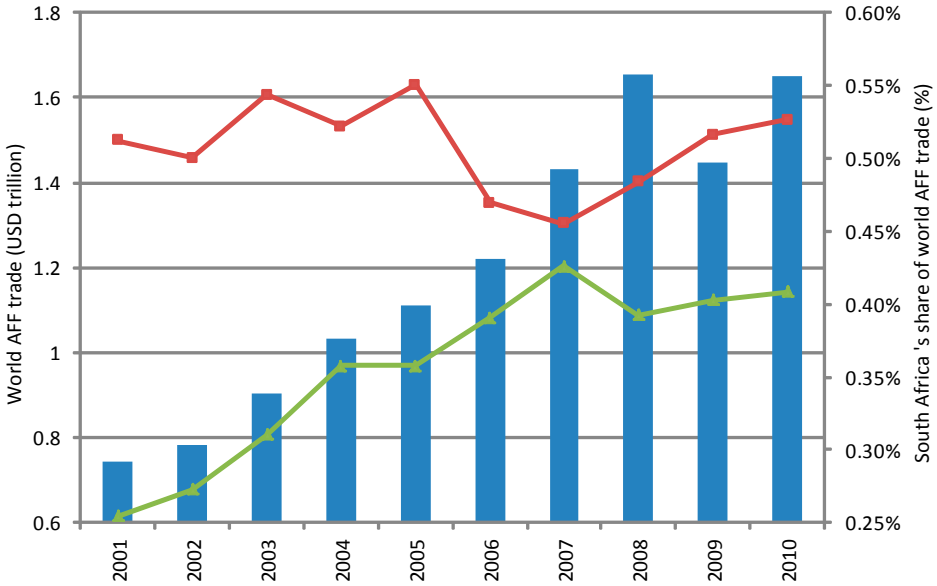


FIGURE 3: SOUTH AFRICAN AND WORLD TRADE IN AFF PRODUCTS, 2001–2010

Source: ITC, 2012

Figure 4 illustrates the ten most traded AFF products in 2011, expressed in US$ billion. Soybeans, wheat and food preparations were the top three traded products, with total trade in these products amounting to US$39.8 billion, US$30.4 billion and US$23.5 billion respectively. The three leading exporters of AFF products in 2011 were the USA, China and Germany, which each exported AFF products to the value of US$190.9 billion, US$134.5 billion and US$129.2 billion respectively.

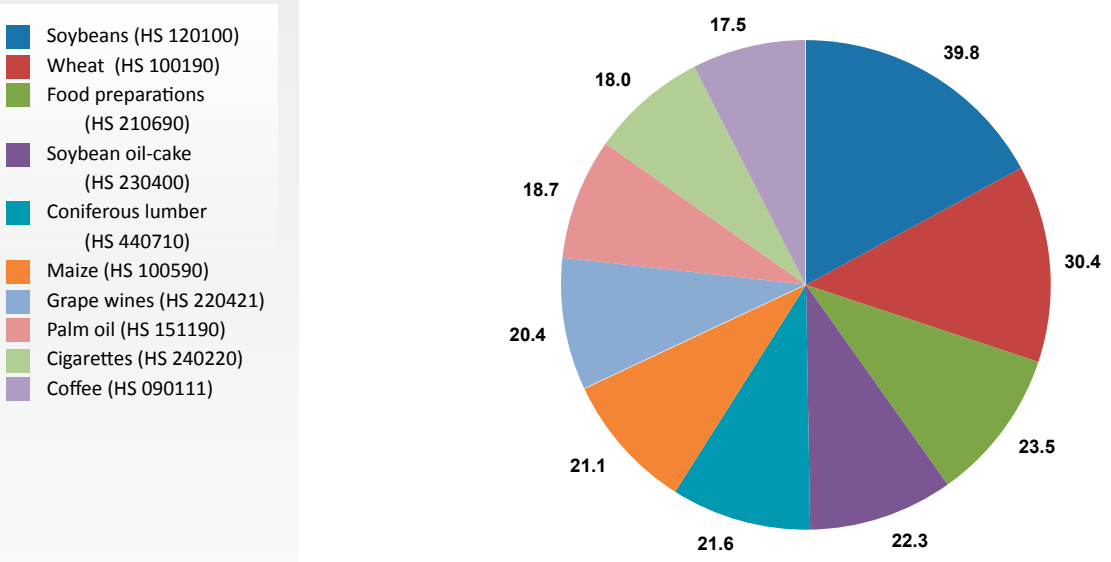


FIGURE 4: LEADING AFF PRODUCTS TRADED IN 2011, US$ BILLION

Source: ITC, 2012

Figure 5 illustrates the ten most exported South African AFF products in 2011, expressed in US$ million. Maize, wood pulp and oranges were the top three products exported by

South Africa, with total exports in each of these products amounting to US$773.5 billion, US$701.4 billion and US$628.2 billion respectively. The Republic of Korea, Kenya and Japan were the top three export destinations for South African maize in 2011, each accounting for 24.8%, 16% and 10.2% of South African maize exports.

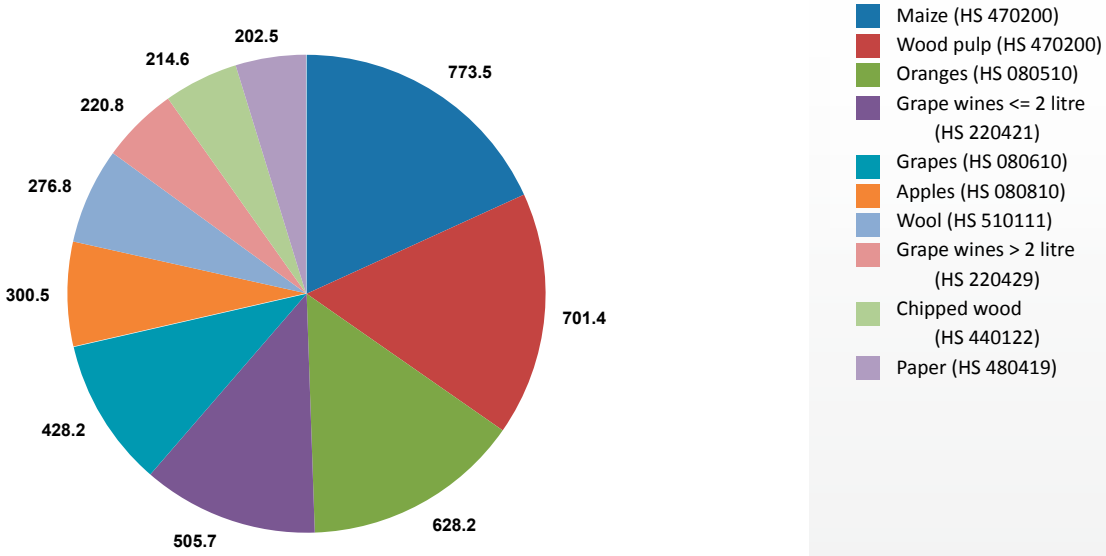


FIGURE 5: LEADING AFF PRODUCTS EXPORTED BY SOUTH AFRICA IN 2011, US$ MILLION

Source: ITC, 2012

Figure 6 illustrates the ten most imported South African AFF products in 2011, expressed in US$ million. Wheat, rice and palm oil were the three leading products imported by South Africa, with imports in each of these products amounting to US$603 billion, US$474.5 billion and US$414.2 billion respectively.

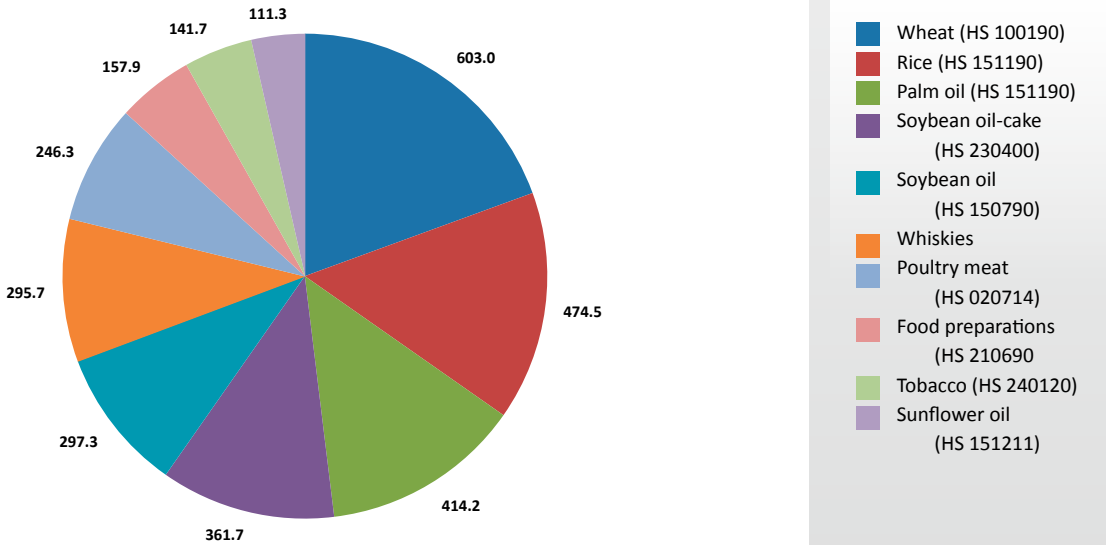


FIGURE 6: LEADING AFF PRODUCTS IMPORTED BY SOUTH AFRICA IN 2011, US$ MILLION

Source: ITC, 2012

2.3 South African trade

Figure 7 represents the South Africa's trade in all commodities. In 2011, the value of South Africa's total exports increased by 20% in comparison to the previous year, while total imports increased by 25%. The larger increase on imports resulted in a negative trade balance of R19 billion in 2011. This was a decline from a positive trade balance of R6.2 billion in 2010. In 2011, China was the largest importer of South African commodities, accounting for 13% of total exports. The USA, Japan, Germany and the United Kingdom (UK) were among the top five importers of South African commodities. Collectively, they accounted for 27% of total exports. The main supplier of imports into South Africa was China, followed by Germany, the USA, Japan and Saudi Arabia. The top five suppliers accounted for 42% of total South African imports. Figure 7 also shows the contribution of the agricultural sector to the country's total trade. In 2011, the agricultural sector contributed 7% and 6% to the country's total exports and imports respectively. Although the overall South African trade profile indicates that the country is net importer, when one looks at the situation at sector level, the agricultural sector appears to be a net exporter.

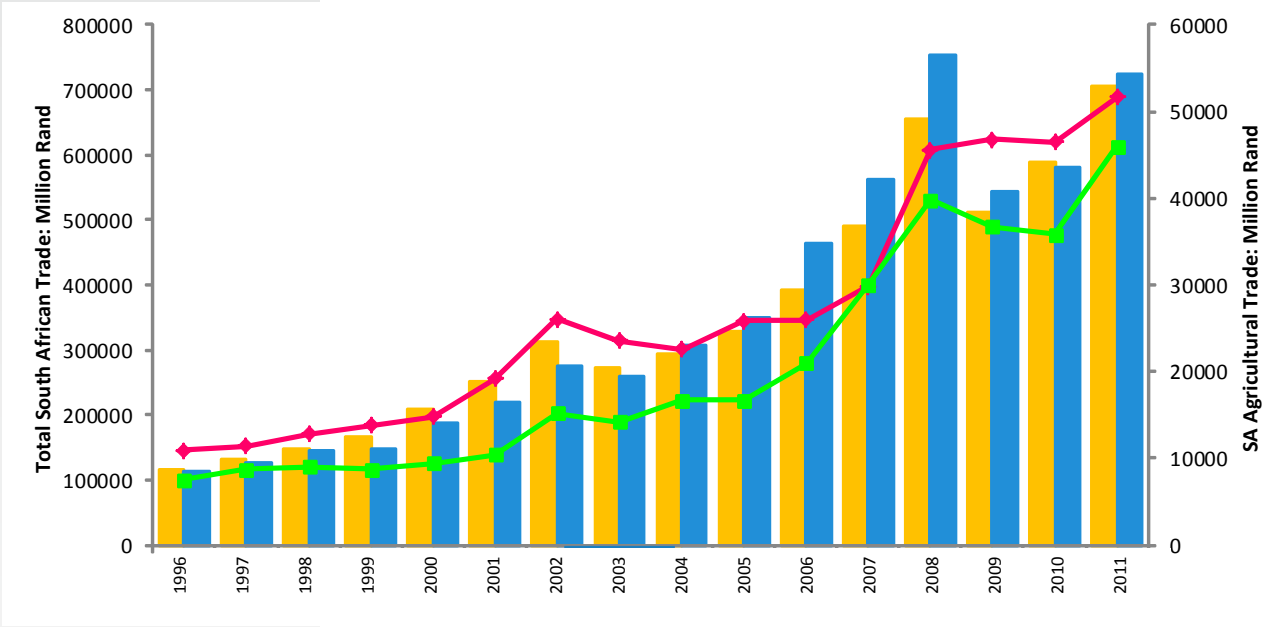


Figure 7: South African trade profile: 1996-2011

Source: World Trade Atlas, 2012

2.4 Unprocessed agricultural trade

Figure 8 shows the value of South Africa's unprocessed agricultural trade with the world between 1996 and 2011. The unprocessed agricultural exports increased from R22.5 billion in 2010 to R27 billion in 2011. The main products that stimulated this growth included maize, which recorded a 179% growth; wool, which achieved a 65% growth; and apples, which had a 15% growth in comparison to the previous year. Unprocessed agricultural imports increased from R7.3 billion to R11.2 billion. This was the first time that South African unprocessed agricultural imports exceeded the R10 billion mark.

The main commodities that were imported included wheat, which registered an import growth of 116%, cotton, with a growth of 103%; and raw sugar with 99% import growth in comparison to the previous year.

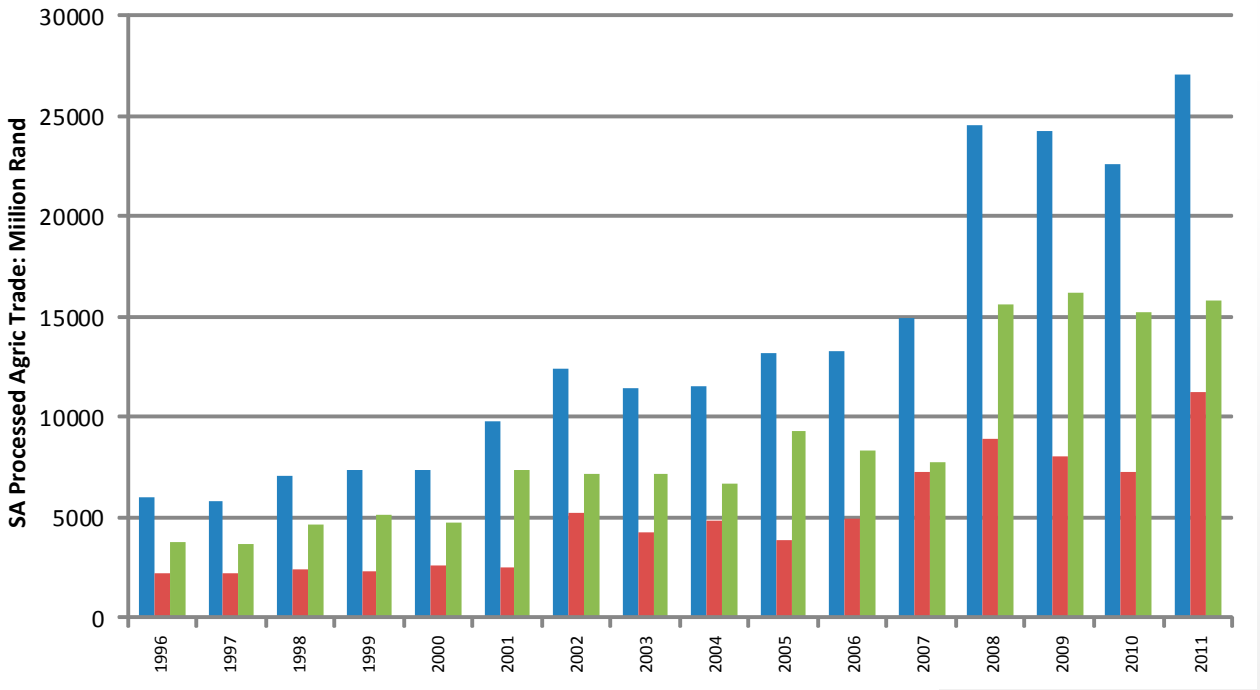


FIGURE 8: SOUTH AFRICAN UNPROCESSED AGRICULTURAL TRADE: 1996–2011

Source: World Trade Atlas, 2012

Table 1 shows the leading destination markets for South Africa's unprocessed agricultural exports. As was the case in previous years, South Africa is very strong in exporting fruit (e.g. oranges, table grapes and apples), followed by maize, wool and sugar. The top five leading destination markets for South Africa's unprocessed agricultural exports are the Netherlands, Mexico, the UK, South Korea and Hong Kong. These countries collectively absorbed around 45% of the total unprocessed agricultural exports in 2011.

Table 1:
South Africa's unprocessed agricultural exports to the world

HS code	Product description	Value of exports in 2011 (million rand)	2011 export quantity (ton)	Growth in value (2010–2011)	Top five destinations of exports (share in South African exports)
Unprocessed agriculture		27 022	-	20%	Netherlands (15%), Mexico (10%), UK (10%), South Korea (6%), Hong Kong (4%)
100590	Maize	5 408	2 449 964	179%	Mexico (46%), South Korea (28%), Italy (6.4%), Taiwan (5.6%) and Mozambique (3%)
080510	Oranges	4 275	975 456	-2%	The Netherlands (19%), Russia (12.5%), Saudi Arabia (9%), United Arab Emirates (UAE) (8%) and the UK (6.3%)
080610	Table grapes	3 102	248 092	1%	The Netherlands (19%), the UK (21%), Hong Kong (7%), Malaysia (5%) and Russia (3%)
080810	Apples	2 100	333 435	15%	The UK (27%), Malaysia (12%), Benin (9%), Angola (5%) and the Netherlands (4.7%)
510111	Wool	2 022	39 812	65%	China (41%), Czech Republic (20%), Hong Kong (14%), India (11%) and Italy (9%)
080820	Pears	1 221	181 580	5%	The Netherlands (33%), UK (11%), Russia (9%), UAE (6%) and Germany (4%)
080550	Lemons	967	164 954	21%	Saudi Arabia (24%), Russia (13%), the Netherlands (10%), UAE (12%) and the UK (8%)
080540	Grapefruit	865	214 797	25%	Japan (27%), the Netherlands (26%), Russia (13%), the UK (4%) and Italy (3.7%)
080520	Mandarins	739	107 783	12%	The UK (38%), the Netherlands (16%), Russia (9%), Hong Kong (9%) and Canada (8%)
170199	Refined sugar	713	134 723	-23%	Mozambique (29%), Zimbabwe (18%), Uganda (13%), Madagascar (10%) and Kenya (8%)

Source: Global Trade Atlas, 2012

Table 2 shows the leading suppliers of unprocessed agricultural imports to South Africa, as well as the largest imported products. The top 10 imported products accounted for 76% of the total of unprocessed agricultural imports in 2011. Major suppliers of imports included Argentina, the USA, Brazil, Zimbabwe and Australia. These countries collectively supplied about 51% of the total of unprocessed agricultural imports to South Africa.

Table 2:
South Africa's unprocessed agricultural imports from the world

HS code	Product description	Value of imports (million rand)	2011 imports quantity (ton)	Growth in value (2010–2011)	Top five suppliers for South African imports (share in South African imports)
Unprocessed agriculture		11 207	-	53%	Argentina (14%), the USA (13%), Brazil (10%), Zimbabwe (7%) and Australia (7%)
100190	Wheat	4 330	1 849 500	116%	Argentina (38%), the USA (27%), Australia (14%), Germany (12%) and Russia (5%)
240120	Tobacco	1 021	25 995	-3%	Zimbabwe (36%), Brazil (26%), India (13%), Malawi (5%) and Bangladesh (4%)
520100	Cotton	738	32 673	103%	Zimbabwe (52%), Zambia (28%), Malawi (6%), Brazil (4%) and the USA (4%)
090111	Coffee	509	22 520	37%	Vietnam (35%), Indonesia (16%), Brazil (12%), Guatemala (6%) and Tanzania (4%)
071333	Kidney beans	451	82 774	3%	China (90%), Ethiopia (5%), Brazil (1%) and the USA (1%)
170111	Raw sugar	388	78 601	99%	Brazil (95%), Thailand (2%) and Zambia (1%)
170199	Refined sugar	340	65,147	54%	Brazil (94%), India (2%) and UAE (2%)
090240	Black tea	295	23,358	-9%	Malawi (55%), Tanzania (14%), Sri Lanka (13%) and Zimbabwe (11%)
100300	Barley	231	93 305	112%	Canada (56%), Argentina (33%) and Australia (10%)
120991	Vegetable seeds	218	1 017	29%	The Netherlands (31%), France (17%), the USA (16%) and China (9%)

Source: Global Trade Atlas, 2012

2.5 Processed agricultural trade

Figure 9 shows the value of processed agricultural imports and exports from 1996 to 2010. The value of processed agricultural exports increased from R23.9 billion in 2010 to R24.5 billion in 2011, indicating a 3% growth in exports. Over the last three years, imports of processed agriculture have shown a stronger growth than exports. In 2011, imports grew by 22% to reach a total of R34.8 billion. The main products imported include rice, palm oil, soybean oil and soybean oil-cake

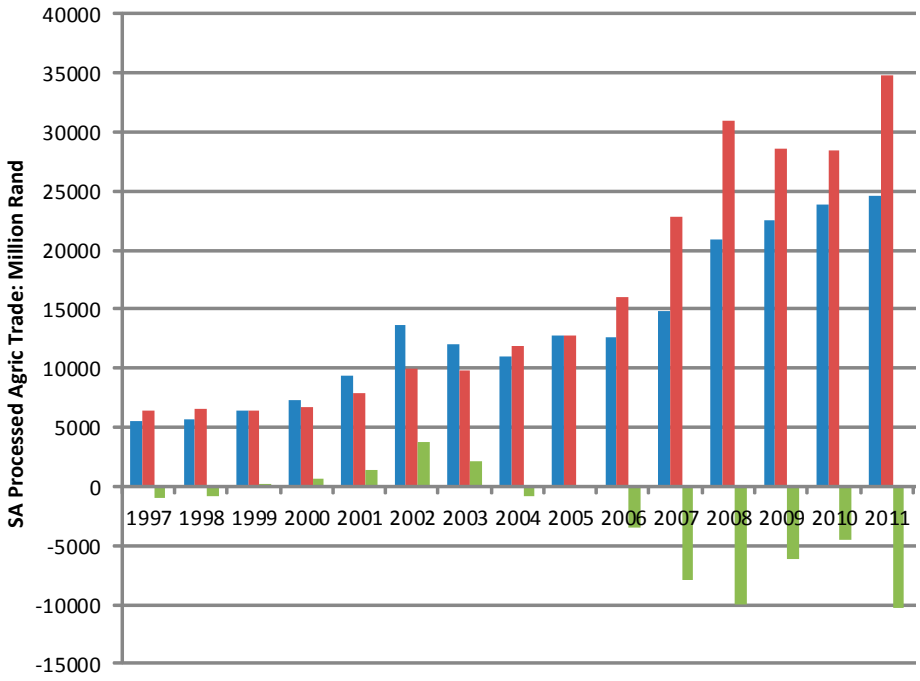


FIGURE 9:
SOUTH AFRICAN PROCESSED AGRICULTURAL TRADE: 1996–2011

Source: World Trade Atlas, 2012

Table 3 shows the top ten processed agricultural export products, as well as the leading destination markets for these exports. The exports of processed agriculture are dominated by wine, prepared food, cigarettes and other alcoholic beverages. The main destination markets for processed agricultural exports were Zimbabwe, the UK, Mozambique, Germany and the Netherlands. These countries collectively accounted for 32% of total exports. This shows that processed agricultural exports are relatively well diversified and not concentrated to a few markets.

Table 3:
South Africa's processed agricultural exports to the world

HS code	Product description	2011 export value (million rand)	2011 export quantity (ton)	Growth in value (2010–2011)	Top five destinations of exports (share in South African exports)
Processed agriculture		24 581	-	3%	Zimbabwe (14%), the UK (7%), Mozambique (6%), Germany (6%) and the Netherlands (5%)
220421	Wine	3 619	160 109	-10%	The UK (19%), the Netherlands (12%), Germany (11%), Canada (7%) and the USA (7%)
220429	Wine	1 606	205 959	9%	The UK (19%), the Netherlands (12%), Germany (11%), Canada (7%) and the USA (7%)
210690	Food preparations	1 089	42 491	35%	Zimbabwe (18%), Nigeria (15%), Mozambique (10%) and Zambia (8%)
080260	Macadamia nuts	842	13 277	67%	The USA (25%), Hong Kong (20%), the Netherlands (19%), Germany (7%) and the UK (6%)
220710	Ethyl alcohol	727	132 395	-13%	The USA (20%), Singapore (12%), Tanzania (8%), Madagascar (7%) and Sri Lanka (7%)
240220	Cigarettes	697	11 014	-5%	Mali (20%), Cameron (19%), Angola (16%), Saudi Arabia (12%) and Bahrain (5%)
150790	Soybean oil	561	48 185	185%	Zimbabwe (97%), Congo (2%) and Zambia (1%)
220870	Liqueurs and cordials	517	13 828	18%	Angola (20%); Canada (10%); Germany (10%); Brazil (8%); and Nigeria (5%)
200870	Peaches preserved	506	54 300	-10%	Hong Kong (19%), Japan (14%), the UK (10%), Germany (8%) and Australia (6%)
151219	Sunflower seed and oil	504	42 408	-29%	Zimbabwe (89%), Mozambique (4%) and Malawi (3%)

Source: Global Trade Atlas, 2012

Table 4 shows the growth in the value of processed agricultural imports, the top ten imported products, as well as the leading suppliers of these products to South Africa. Rice is the largest imported processed product, with the bulk of it originating from Thailand and India. These two countries supply around 85% of the total imported rice. Other imported products include soybean oil-cake, palm oil and whisky. Overall, the value of South Africa's processed agricultural imports experienced a value growth of 22% between 2010 and 2011.

Table 4: South Africa's processed agricultural imports to the world

HS code	Product description	Import value (million rand)	Import quantity (tons)	Growth in value (2010–2011)	Top five suppliers for South African imports (share in South African imports)
Processed agriculture		34 807	-	22%	Argentina (11%), Thailand (10%), the UK (7%), Brazil (7%) and Malaysia (6%)
100630	Rice	3 496	874 714	17%	Thailand (71%), India (14%), Brazil (9%) and Pakistan (3%)
151190	Palm oil	2 976	364 477	36%	Malaysia (55%), Indonesia (43%) and India (1%)
230400	Soybean oil-cake	2 605	945 543	5%	Argentina (99%) and India (1%)
150790	Soybean oil	2 180	221 892	35%	Germany (37%), Spain (26%), the Netherlands (16%), Brazil (12%) and Argentina (8%)
220830	Whisky	2 139	32 504	12%	The UK (79%), Ireland (10%), the USA (8%) and Canada (2%)
020714	Chicken cuts and offal	1 794	177 287	67%	Brazil (45%), the Netherlands (17%), the UK (8%), Canada (6%) and Argentina (5%)
210690	Food preparations	1 141	19 996	21%	The USA (19%), the Netherlands (13%), Germany (10%), Canada (7%) and France (7%)
151211	Sunflower seed and oil	793	84 045	6%	Ukraine (50%), Argentina (39%), the USA (10%) and Malaysia (1%)
020712	Meat and edible offal of chicken	647	147 691	45%	Brazil (78%), Argentina (13%), the UK (3%) and France (2%)
050400	Animal guts, bladders and stomachs	555	16 272	10%	China (65%), Germany (8%), the USA (8%), Brazil (6%) and New Zealand (4%)

Source: Global Trade Atlas, 2012

2.6 South Africa's fisheries trade

For the past sixteen years, South Africa has had a positive trade balance in the fisheries subsector. Figure 10 shows the trends in the value of exports and imports between 1996 and 2011. The years 2002 and 2008 recorded the highest export values of Fisheries products, while the value of the imports were highest in 2009. The concerning trend is the significant worsening of the trade balance since 2002.

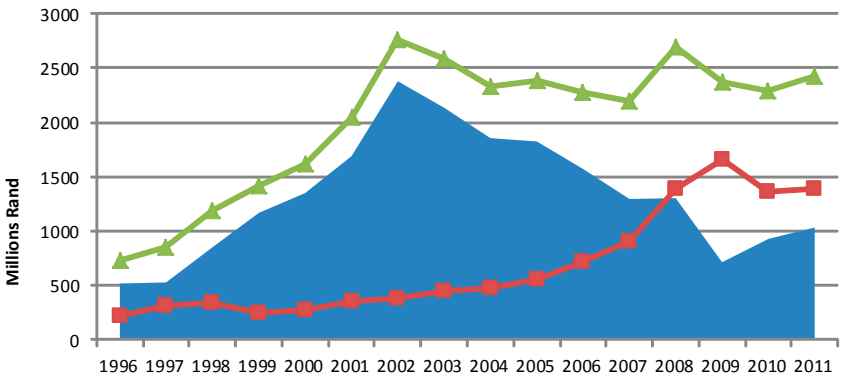


Figure 10: South Africa's Fisheries Trade

Source: Global Trade Atlas, 2012

Table 5 indicates that the total value of the import of fisheries products during 2011 amounted to R1.39 billion and that the quantity of imports declined by -5.4% from 2010 to 2011. The five leading sources provided 74% of South Africa's total fisheries imports. This level of concentration could make South Africa vulnerable to policy changes or sudden market fluctuations in these countries. Thailand (44%), China (12%), New Zealand (7%), Norway (6%) and the USA (5%) were the leading sources of South African fisheries products during 2011. The total value of South African fisheries imports increased by 3% from 2010 to 2011. Sardines and tuna, together with cuttlefish and squid, were the leading import products and constituted 31% of imports. The concentration of sardine (83%) and tuna (95%) imports from Thailand should be noted.

Table 5:
South Africa imports of Fisheries products

Commodity code	Product description	Import value (million rand)	Import quantity	Growth in value (2010–2011 %)	Top five destinations of exports (share in South African exports)
Fisheries products		1 395	79 740	3	
160413	Sardines, sardinella, brisling prepared and/or preserved, not minced	4489	30 882	20	Thailand (83%), China (9%), Philippines (5%), Portugal (1%) and Canada (1%)
160414	Tuna, skipjack, bonito prepared and/or preserved, not minced	222	11 658	11	Thailand (95%), Philippines (2%), Taiwan (1%), Indonesia (0.4%) and the UK (0.3%)
030749	Cuttlefish and squid, frozen, dried, salted or in brine	162	9 837	-27	China (39%), Spain (13%), the USA (12%), Falkland Islands (9%) and Peru (8%)
030379	Fish NESOI*, with bones, frozen	124	8 144	-11	New Zealand (61%), China (10%), Japan (7%), Taiwan (6%) and Korea (5%)
160520	Shrimps and prawns, prepared or preserved	73	5 723	-38	India (66%), Thailand (23%), Malaysia (4%), Vietnam (2%) and Bangladesh (1%)
030378	Whiting and hake, except fillets, liver, roe, frozen	70	2 877	-65	The USA (41%), Argentina (25%), Uruguay (13%), Peru (6%) and Chile (5%)
160590	Molluscs, etc., prepared or preserved	64	2 088	-4	China (60%), New Zealand (14%), Chile (10%), Spain (7%) and Indonesia (5%)
030212	Salmon, packaged, Atlantic and Danube, with bones, frozen or chilled	60	1 651	-20	Norway (87%), the UK (10%), Canada (1%) and China (0.2%)
030322	Atlantic and Danube salmon, with bones, frozen	25	1 157	-49	Norway (70%); USA (15%); Chile (10%); Switzerland (3%); UK (2%)
160420	Fish NESOI, prepared or preserved	22	1 075	-32	Uruguay (42%), China (23%), Thailand (11%), Vietnam (11%) and New Zealand (5%)

* NESOI = not elsewhere specified or indicated

Source: Global Trade Atlas, 2012

Table 6 shows that the total export of fisheries products during 2011 amounted to R2.4 billion and the volume of imports grew by 150% from 2010 to 2011. The five leading destinations demanded 56% of South Africa's total fisheries exports in 2011. This level of concentration is generally not optimal and South Africa should ideally diversify its export markets more.

The leading export destinations for South African fisheries products were Spain (20%), Italy (16%), Hong Kong (7%), the USA (7%) and Portugal (7%) during 2011. The total value of South African fisheries exports increased by 6% from 2010 to 2011.

Cuttlefish and squid, frozen fish (New England Seafood) and fish were the leading export products and constituted 36% of exports in 2011. Italy constituted 46% of the cuttlefish market and Spain constituted (84%) of the fish (chilled) market in 2011.

Table 6: South Africa exports of fisheries products

Commodity code	Product description	Export value (million rand in 2011)	Export quantity in 2011	Growth in value (2010–2011 %)	Top five destinations of exports (share in South African exports
Fisheries products		2 427	260 183	6.2	
030749	Cuttlefish and squid, frozen, dried, salted or in brine	453	8 144	-7	Italy (46%), Spain (28%), Greece (9%), Portugal (7%) and Croatia (4%)
030379	Fish NESOI, with bones, frozen	422	79 740	40	Cameroon (29%), Italy (19%), Angola (14%), Portugal (10%) and Korea (6%)
030378	Whiting and hake, except fillets, liver, roe, frozen	251	11 658	31	Spain (42%), Portugal (37%), Italy (11%), Angola (2%) and the UK (1%)
030269	Fish NESOI, with bones, fresh or chilled	205	9 837	-4	Spain (84%), the UK (10%), Germany (3%), the Netherlands (1%) and the USA (0.4%)
030622	Lobsters, live, fresh, chilled, dried, salted or in brine	197	450	-10	China (59%), Hong Kong (34%), Japan (2%), Italy (2%) and Malaysia (1%)
030611	Rock lobster and other sea crayfish, frozen	169	N/A	-1	The USA (64%), Japan (28%), Switzerland (4%), China (2%) and France (1%)
160419	Fish NESOI, prepared or preserved, whole or pieces	151	5 723	61	Germany (38%), Italy (37%), Australia (15%), Mauritius (3%) and the Netherlands (1%)
160590	Molluscs, etc., prepared or preserved	98	192	54	Hong Kong (84%), Singapore (13%), Malaysia (3%), Zambia (0.2%) and Angola (0.1%)
030371	Sardines except fillets, livers and roes, frozen	88	30 882	-25	Mauritius (30%), Fiji (23%), Malaysia (10%), ships and craft stores (5%) and New Zealand (5%)
160420	Fish NESOI, prepared or preserved,	8		265	Australia (37%), Germany (24%), the Netherlands (9.1%), Italy (7.6%) and Mauritius (7%)

Source: Global Trade Atlas, 2012

2.7 South Africa's forestry trade

For the past 16 years, South Africa has had a positive trade balance in the forestry subsector. Figure 11 shows the trends in the value of exports and imports of forestry products between 1996 and 2011. Within the specified period, 2007 marks the lowest trade balance for forestry products.

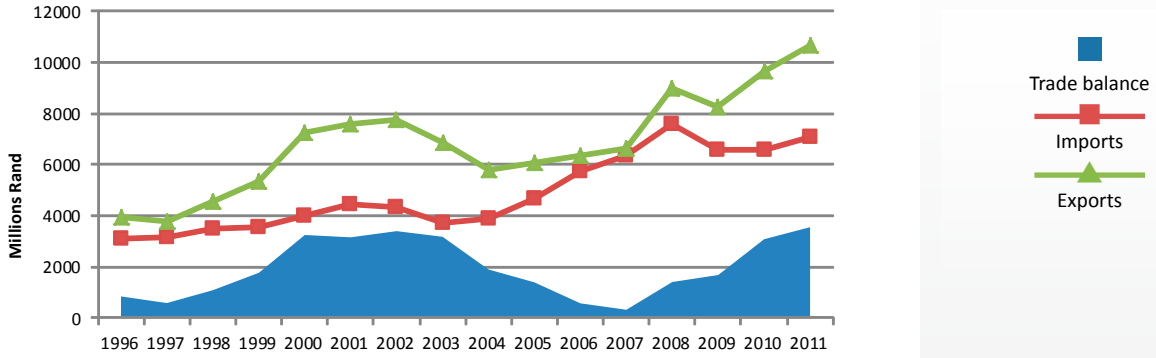


Figure 11: South Africa's forestry trade

Source: Global Trade Atlas, 2012

Table 7 shows that the total value of imported of forestry products during 2011 amounted to R7.1 billion, which grew by 8% from 2010 to 2011. The leading sources of South African forestry products during 2011 were China (14%), the UK (13.4%), the USA (12.%), Germany (8%) and Sweden (5%). Printed articles (books, brochures, etc.), sanitary paper and fine paper were the leading import products and constituted 37% of imports.

Table 7: South African imports of forestry products

Commodity code	Product description	Import value (million rand 2011)	Import quantity 2011	Growth in value (2010–2011) (%)	Top five destinations of exports (share in South African exports)
Forestry products		710 561 1550		8	
490199	Printed books, brochures, etc., NESOI	1 410 602 439	21 417	9	The UK (48%), the USA (23%), China (9%), Singapore (3%) and India (2%)
481840	Sanitary napkins, diapers and sanitary articles of paper, etc.	893	39 864	22	Poland (23%), Hungary (22%), China (13%), Germany (8%) and Turkey (5%)
481029	Paper and/or paper-board, excluding light-weight writing, etc., clay-coated over 10% mechanical	320	46 269	-15	Finland (42%), China (25%), Germany (8%), Korea (7%) and Sweden (5%)
481190	Paper, paperboard, cellulose wadding, coated, etc., NESOI	318	13 539	38	Germany (28%), Austria (19%), Italy (16%), Japan (10%) and China (6%)
470321	Chemical wood pulp, soda, etc., non-dissolving semi-bleached and bleached coniferous	309	48 095	7	The USA (48%), Argentina (34%), Switzerland (9%), Austria (3%) and Finland (3%)

Commodity code	Product description	Import value (million rand 2011)	Import quantity 2011	Growth in value (2010–2011) (%)	Top five destinations of exports (share in South African exports)
481039	Kraft paper and/or paperboard, excluding graphic, clay-coated unbleached roll/ sheet	198	46 269	7	Sweden (77%), the USA (15%), Brazil (7%), China (0.2%) and Germany (0.2%)
440890	Veneer sheet, etc., not over 6 mm, non-coniferous NESOI	160	21 287	6	Brazil (32%), the USA (14%), Ghana (7%), Gabon (7%) and China (6%)
480920	Self-copy paper, in rolls or sheets over 36 cm wide	159	14 265	-1	The USA (38%), Germany (29%), Thailand (16%), Indonesia (13%) and China (4%)
441299	Plywood, veneer panels and similar laminated wood NESOI	159	27 630	18	China (45%), Malaysia (16%), Brazil (14%), Malawi (8%) and Singapore (4%)
441600	Casks, barrels, vats, etc. and parts of wood	147	1455	-12	France (86%), Chile (5%), the USA (4%), Australia (3%) and Hungary (1%)

Source: Global Trade Atlas, 2012

Table 8 shows that the total value of exports of forestry products during 2011 amounted to R9.6 billion, which declined by -9% from 2010 to 2011. Indonesia (18%), China (12%), Thailand (6%), the UK (6%) and Zimbabwe (5.6%) were the leading export destinations for South African forestry products during 2011. Chemical wood pulp, kraftliner and chemical wood pulp soda were the leading export products and constituted 73% of the exported value.

Table 8:
South Africa exports of forestry products

Commodity code	Product description	Export value (million rand)	Export quantity	Growth in value (2010–2011)	Top five destinations of exports (share in South African exports)
Forestry products		9 672 7		-9	
470200	Chemical wood pulp, dissolving grades	4 419	730 377	-13	Indonesia (36%), China (16%), Thailand (11%), India (11%) and Belgium (6%)
480419	Kraftliner, uncoated, bleached, in rolls or sheets	1 297	218 684	-12	The UK (17%), Spain (15%), Italy (13%), Germany (13%) and the Netherlands (7%)
470329	Chemical wood pulp soda, etc., non-dissolving semi-bleached and bleached non-coniferous	1 132	29 5851	-10	China (39%), Korea (25%), Indonesia (11%), Philippines (6%) and the Netherlands (5%)
490199	Printed books, brochures, etc. NESOI	413	7 774	25	Congo (18%), Uganda (14%), Zimbabwe (12%), Zambia (11%) and Nigeria (8%)
480100	Newsprint, in rolls or sheets	29	55 512	-4	Zimbabwe (23%), Kenya (13%), Zambia (11%), Nigeria (8%) and Mauritius (7%)

Commodity code	Product description	Export value (million rand)	Export quantity	Growth in value (2010–2011)	Top five destinations of exports (share in South African exports)
481910	Cartons, boxes and cases, corrugated paper and paperboard	222	22 797	-4	Zimbabwe (29%), Mozambique (21%), Brazil (13%), Angola (11%) and Zambia (5%)
441820	Doors and their frames and thresholds, of wood	166	80	-1	The UK (65%), the Netherlands (11%), Mozambique (7%), Zimbabwe (5%) and Zambia (4%)
481840	Sanitary napkins, diapers and sanitary articles of paper, etc.	94	80	-32	Zimbabwe (26%), Zambia (25%), Angola (12%), the UK (9%) and Mozambique (8%)
480411	Kraftliner, uncoated, unbleached in rolls or sheets	160	27 967	25	Zambia (15%), Tanzania (14%), Zimbabwe (12%), Kenya (10%) and Congo (7%)
481920	Folding cartons, boxes, etc., non-corrugated paper and paperboard	155	6 316	38	Zimbabwe (49%), Zambia (13%), Malawi (10%), Madagascar (6%) and Mozambique (6%)

Source: Global Trade Atlas, 2012

2.8 Freight rate indices

A significant amount of traded agricultural products are transported by ship. This section looks at the shipping cost of bulk and container cargo. Figure 12 shows the Baltic Dry Index (BDI) and the HARPEX Shipping Index from January 2009 to December 2011.

The BDI measures international freight rates for dry bulk cargo, and is significantly influenced by the demand to move raw materials internationally and the supply of shipping capacity. The annual average BDI for 2011 was 1 549 index points, a 44.1% decrease on the annual average of 2 774 index points in 2010. Although the average BDI was lower in 2011 than in 2010, it showed an increasing trend in 2011.

The HARPEX Shipping Index measures weekly container shipping rate changes for eight classes of all-container ships, therefore providing insight into a much wider base of commercial goods than commodities alone. The annual average HARPEX Shipping Index for 2011 was 700 index points, a 27.1% increase on the annual average of 550 index points in 2010.

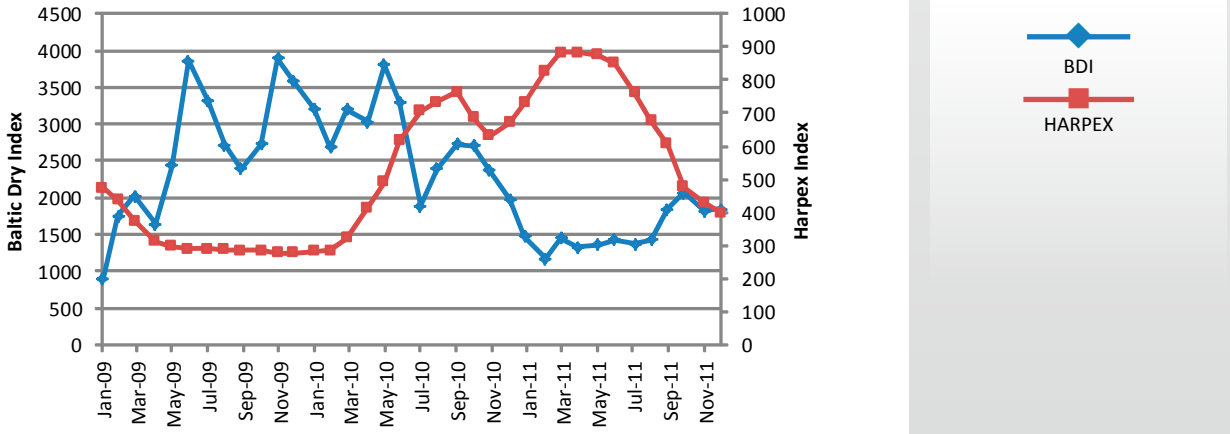


Figure 12: Trends in the BDI and the HARPEX Shipping Index

Source: Harper Peterson and Co., 2012; SAGIS, 2012

3 TRENDS IN INPUT COSTS

3.1 TERMS OF TRADE FOR PRIMARY AGRICULTURE

The rise in input costs at farm level creates what is known as the cost-price squeeze effect. This is best illustrated by calculating the terms of trade at the primary agricultural level by dividing the primary Producer Price Index (PPI) with the Farming Requisite Price Index (FRPI); i.e., the prices received by farmers for their output divided by the prices paid for farm inputs. From Figure 13, it is evident that the terms of trade at the primary agricultural level has deteriorated significantly over time. There was, however, some relief during the commodity price boom in 2007 and 2008.

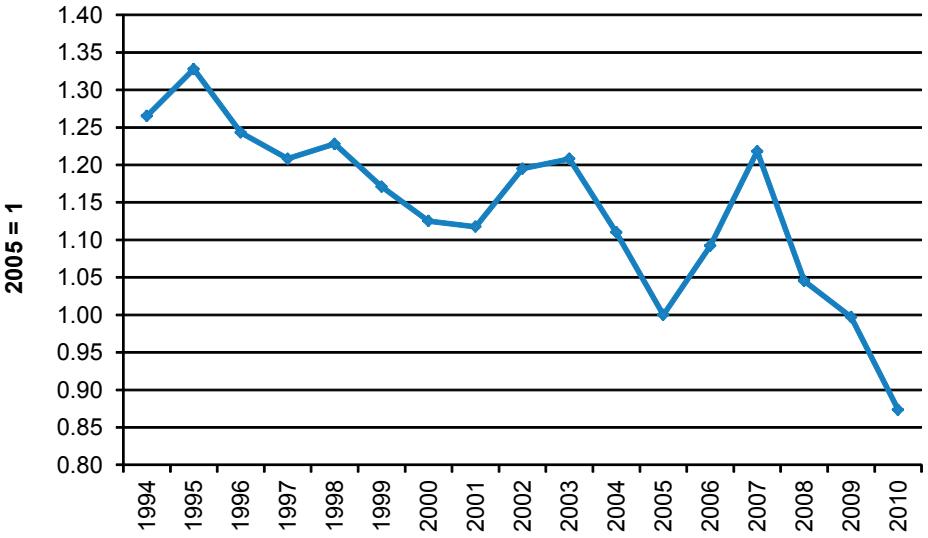


FIGURE 13: TERMS OF TRADE (1995–2011)

Source: Own calculations based on data from DAFF, 2012

The overall financial position of primary producers is constantly under pressure. Figure 14 shows the real gross income, real expenditure on intermediate goods and services, and the real net farming income from 1990 to 2011. Over the depicted period, the gross income increased by 62.2%, while the expenditure on intermediate goods and services increased by 141.9%. This led to an increase of only 59.6% in the real net farming income. Between 2010 and 2011, the changes were 6.1%, 7.6% and 9.1% respectively. During 2009 and 2010, the real net farming income decreased by 15% and 17.7%.

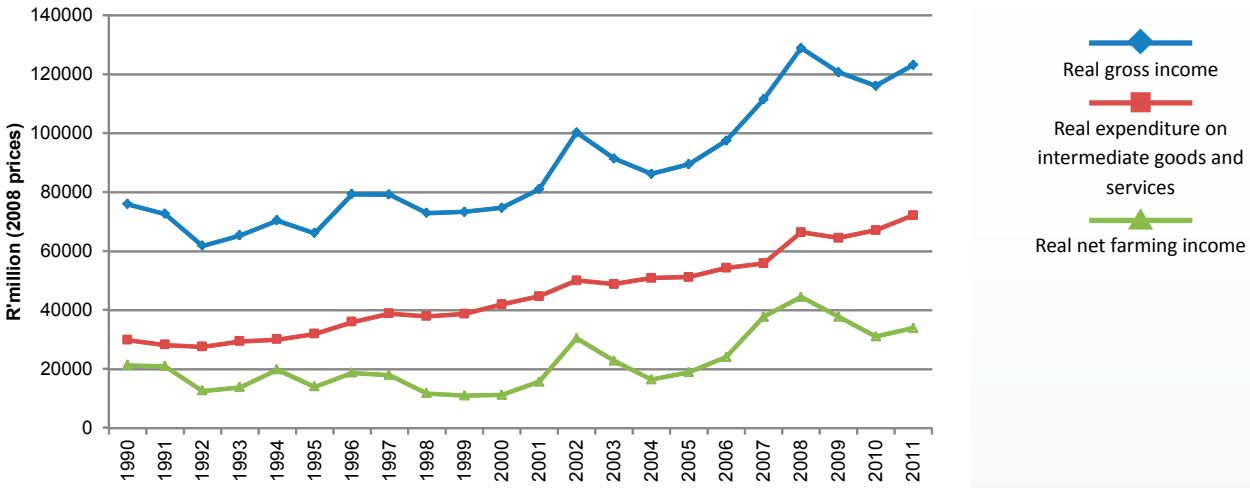


FIGURE 14: REAL GROSS INCOME, EXPENDITURE ON INTERMEDIATE GOODS AND SERVICES AND NET FARMING INCOME (1990–2011)

Source: Own calculations based on data from DAFF, 2012

Within the ambit of the aforementioned, this section reflects on cost trends for selected inputs in the primary agriculture and food value chain, which cause this cost-price squeeze.

3.2 FARMING REQUISITE PRICE INDEX TRENDS

The FRPI, as calculated by the Department of Forestry and Fisheries (DAFF) measures the trends of prices farmers pay for farming inputs. This index includes prices of machinery and implements, material for fixed improvements and intermediate goods and services and is a weighted average index.

From Figure 15, it is evident that all the input categories' prices showed continuous increases throughout the depicted period. The total FRPI increased by 361.4% from 1995 to 2011, with the price of intermediate goods and services increasing the most (by 375.3%), followed by the price of machinery and implements, and then materials for fixed improvements (by 289.2% and 249.9% respectively). The FRPI increased by 12.7% from 2010 to 2011, with the biggest increase of 12.9% being in the price of intermediate goods and services.

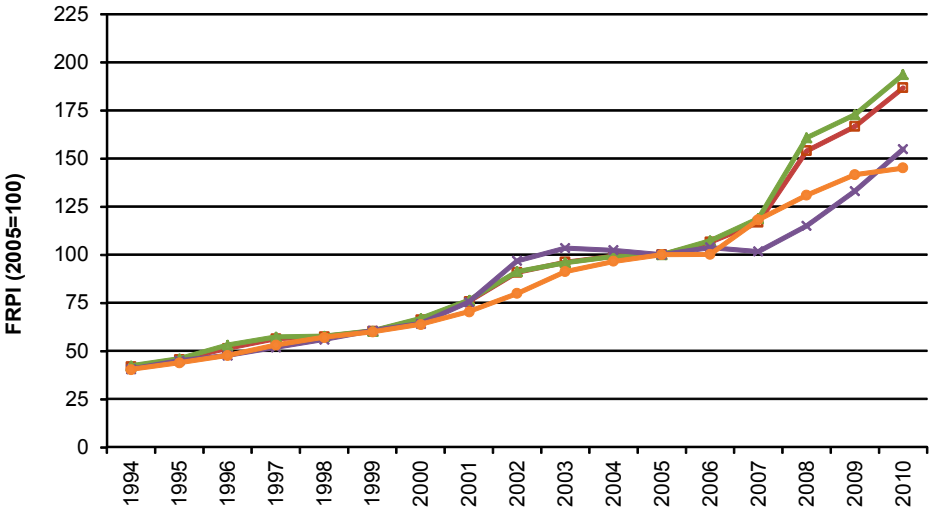


FIGURE 15: FRPI (1995–2011)

Source: DAFF, 2012

When considering the price trends of intermediate goods and services, it is clear from Figure 16 that the price of fertilizer and fuel is much more volatile than other prices and peaked at higher levels during 2008. The price of fertilizer came down, but not to the levels prior to 2008. From 1995 to 2011, the price of fertilizer rose by 501.5%, the price of fuel rose by 462% and the price of animal feed increased by 434.3%. The price trends of these inputs from 2010 to 2011 were as follows: an increase of 23.5% in the price of fertilizer, an increase of 5.2% in the price of fuel, and an increase of 12.5% in the price of animal feed.

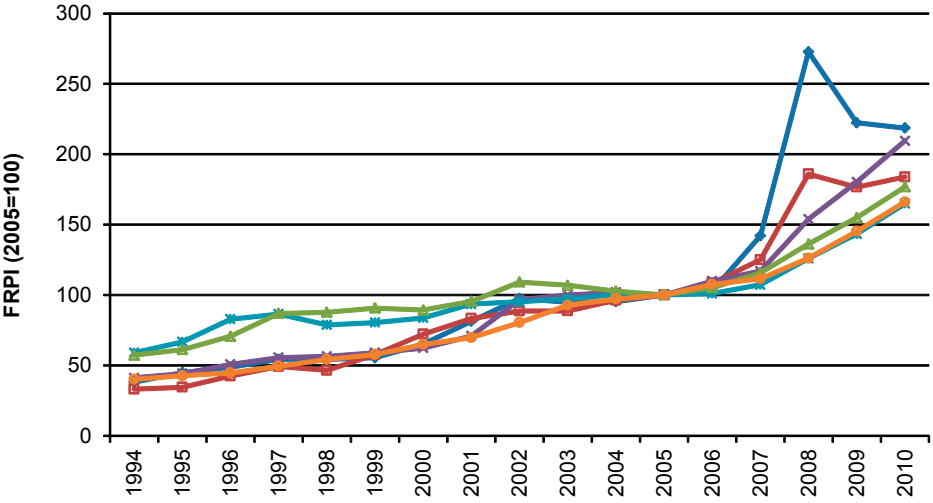


FIGURE 16: FRPI OF INTERMEDIATE GOODS AND SERVICES (1995–2011)

Source: DAFF, 2012

3.3 PRODUCER PRICE INDEX TRENDS

As mentioned above, the cost of food manufacturing is not just influenced by the price of raw commodities as inputs, but also by non-food inputs. Among these are the cost of diesel, packaging material, electricity and labour. The PPI – as calculated by the Sta-

tistics South Africa (Stats SA) – measures trends in the manufacturing price of goods at first point of sales (factory level). This index includes manufacturing prices of products destined for local use, for export, as well as imported components for further value adding. This index implies – but does not directly measure – the cost of services involved in the production process.

The PPI is measured at industry level and is a weighted average index to indicate the production inflation of the economy. Figure 17 shows the PPI for all industry groups, as well as some selected industries. From 2000 to 2011, the PPI of all industry groups increased by 108%. Contributing to this increase was an increase of 194% in electricity prices, a 177% increase in gas and water prices, a 176% increase in the price of petroleum and coal products, a 75.1% increase in the price of plastic products, a 68.9% increase in agricultural food industry prices and a 68% increase in the manufacturing price of pulp, paper and paperboard products.

Price trends between 2010 and 2011 for the items depicted were as follows: all groups increased by 8.5%, electricity increased by 25.4%, petroleum and coal products increased by 22.2%, gas and water increased by 11.3%, paper, pulp and paperboard products increased by 5.6%, agriculture food increased by 4.3% and plastic products increased by 3.8%.

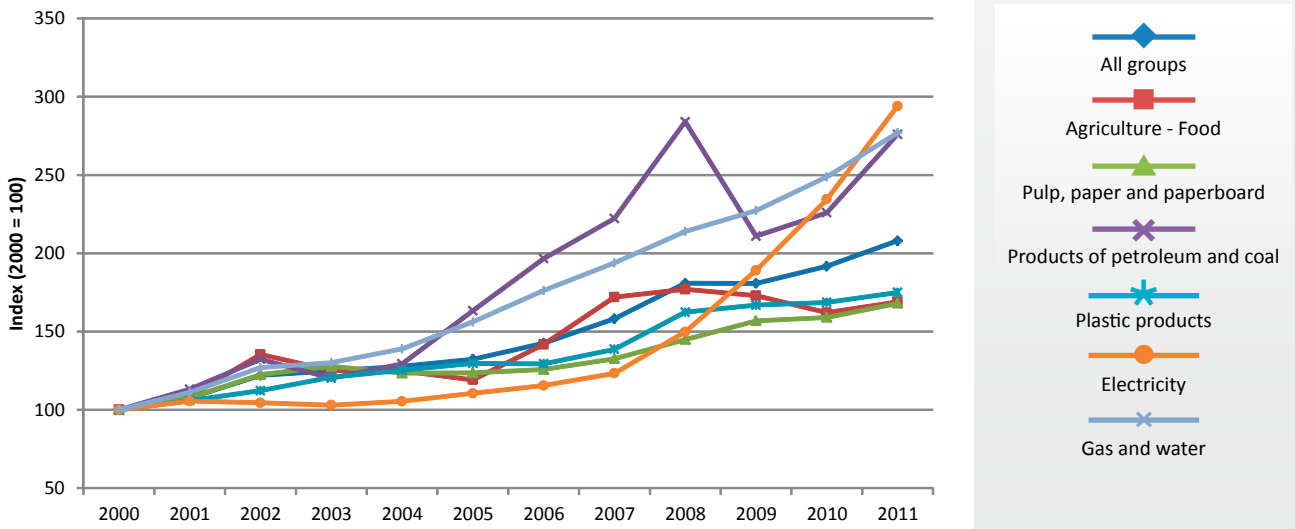


FIGURE 17: PPI FOR SELECTED INDUSTRY GROUPS (2000–2011)

Source: Stats SA, 2012

Figure 18 shows the PPI for selected materials. These items are not industry-specific, but indicate price trends to industry on the input side. From 2000 to 2011, the PPI of plastic bottles increased by 281.3%, tin plate increased by 236.7%, diesel at retail outlets by 123.7% and diesel at refinery level by 162.4%, kraft paper increased by 77.3% and boxes and corrugated cardboard by 71.8%.

Price trends between 2010 and 2011 for the items depicted were as follows: tin plate increased by 66.5%, plastic bottles increased by 51.7%, boxes and corrugated cardboard increased by 6.8%, kraft paper increased by 1.5%, while diesel at retail outlets decreased by 24.2% and diesel at refinery level decreased by 10.2%.

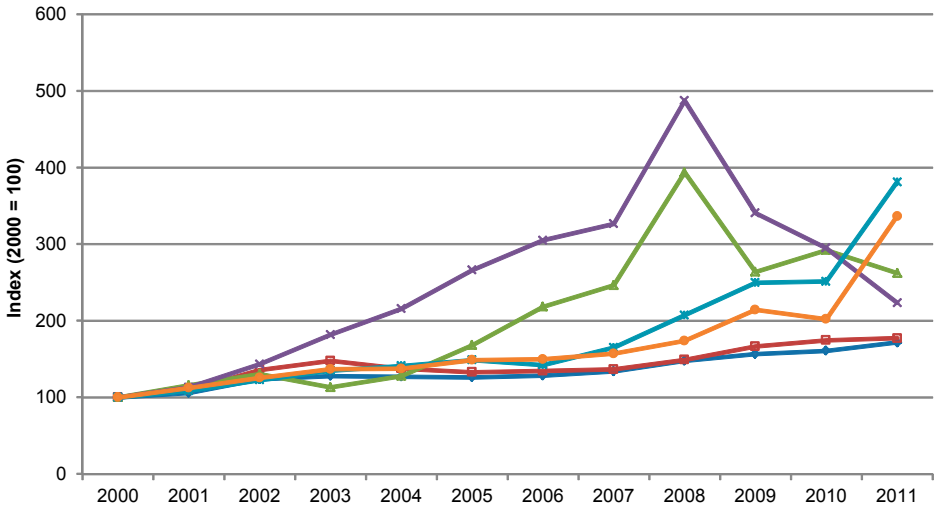


FIGURE 18: PRODUCER PRICE INDEX FOR SELECTED INPUT ITEMS (2000–2011)

Source: Stats SA, 2012

3.4 TRENDS IN THE COST OF SELECTED INPUTS

3.4.1 FERTILIZER PRICES

International fertilizer prices

According to the International Fertilizer Industry Association (IFA) (2011), global total nutrient production met – and in certain cases surpassed – total consumption. Production of ammonia, phosphate rock and potash totalled 227 million tons of nutrients. In 2011, global nutrient capacity grew at a slower rate than production, adding close to 11 million tons of nutrients and representing an aggregate increase of 4% compared to 2010. Globally, the fertilizer industry operated at 83% of installed capacity, compared to 82% in 2010.

Figure 19 shows the international fertilizer price movements. Price changes for the items between 2010 and 2011 were as follows: the price of urea increased by 43.6%, the price of muriate of potash (MOP) increased by 22.4% and the di-ammonium phosphate (DAP) price increased by 21.9%.

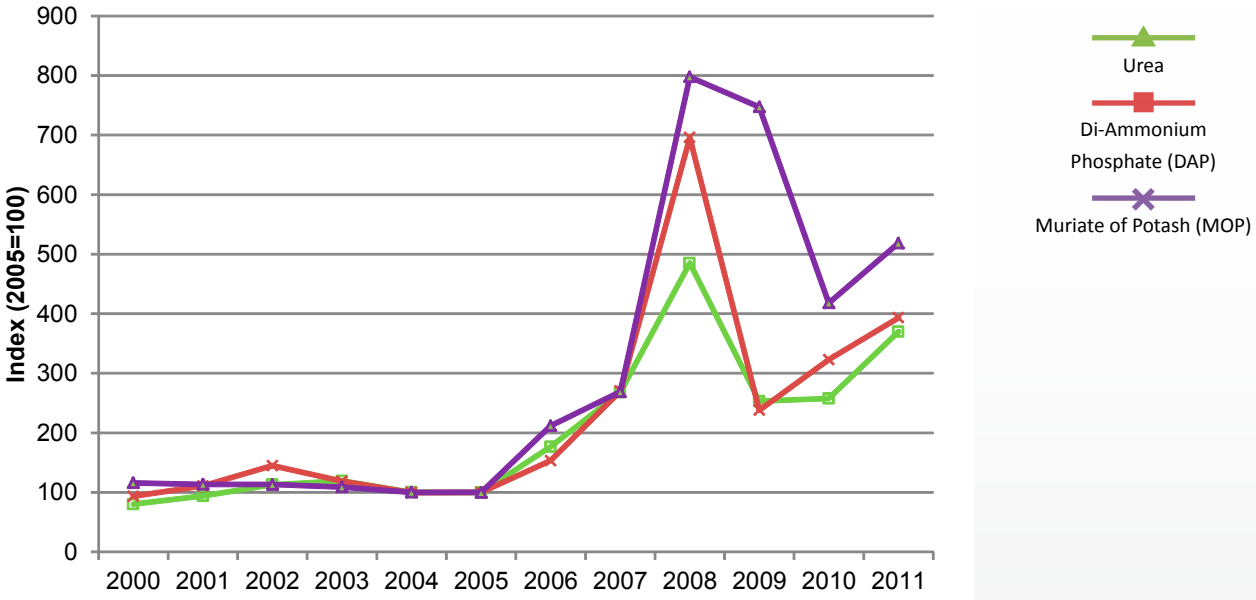


FIGURE 19: INTERNATIONAL FERTILIZER PRICES (2000–2011)

Source: Grain South Africa (Grain SA), 2012

Domestic fertilizer prices

The South African fertilizer industry is fully exposed to world market forces in a totally deregulated environment, with no import tariffs or government-sponsored measures. The local demand for fertilizer is in the region of 2 million physical tons. This amounts to approximately 750 000 tons of plant nutrient (N + P2O5 + K2O). Table 9 shows the South African fertilizer demand, domestic production and import situation.

TABLE 9: THE SOUTH AFRICAN FERTILIZER DEMAND, DOMESTIC PRODUCTION AND IMPORTS

Nutrient	Demand (thousand tons)	Domestic production (thousand tons)	Imports (thousand tons)	Products
Nitrogen (N)	400	250	150	Mostly urea
Phosphate (P2O5)	200	Over 75% of demand	<25% of demand	Mostly DAP
Potassium (K2O)	160	None	All	Mostly MOP

Source: Fertilizer Society of South Africa (FSSA), 2012

South Africa is a net importer of potassium and imports approximately 40% of its nitrogen requirements. Thus, the domestic prices are significantly impacted on by the international prices of raw material and fertilizer, as well as shipping costs and the rand/dollar exchange rate.

Figure 20 depicts the price movement of local fertilizer prices. From 2000 to 2011, the local prices of MOP, urea pril (46) and potassium chloride increased by 228.9%, 230.8% and 221.7% respectively. Figure 20 further shows that, on average, price movements were generally sideways and with some smaller fluctuations until the end of 2007, after which they escalated during 2008. Price trends for the items depicted between 2010 and 2011 were as follows: MOP increased by 16.6%, urea pril (46) increased by 24.3% and potassium chloride decreased by 18.6%.

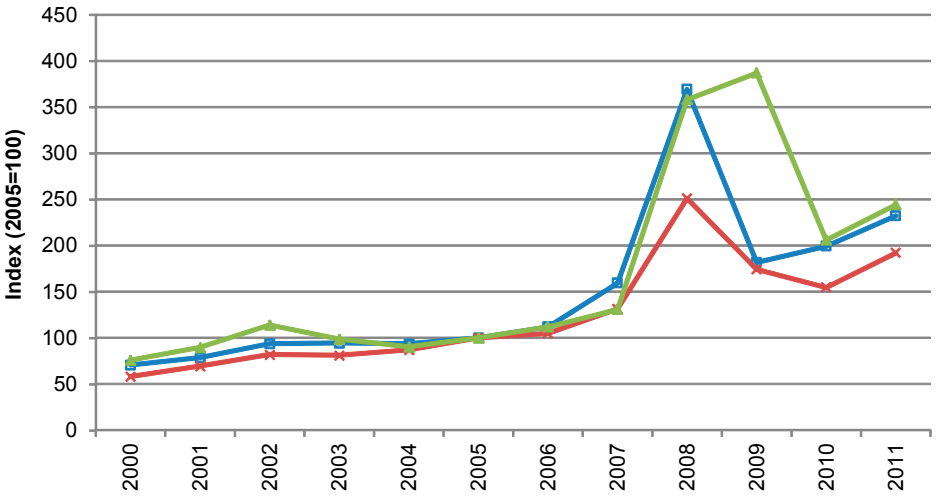


FIGURE 20: LOCAL FERTILISER PRICE TRENDS (2000–2011)

Source: Own calculations from listed prices, 2012

3.4.2 ADMINISTERED AND REGULATED PRICES

An administered price is defined as the price of a product that is set consciously by an individual producer or group of producers and/or any price that can be determined or influenced by government, either directly or through a government agency/institution without reference to market forces.

Examples of administered prices are the following:

- Housing (assessment rates, sanitary fees, refuse removal, water, electricity and paraffin)
- Transport (petrol, public transport – trains, motor licenses and motor vehicle registration)
- Communication (telephone fees, postage, cell phone calls)
- Recreation and culture (television licence)
- Education (school fees and university, technikon and college fees)
- Restaurants and hotels (university boarding fees).

Regulated prices are those administered prices that are monitored and controlled by government policy. To this end, price regulation does not necessarily imply the presence of an economic regulator, but a restriction on the extent to which prices may vary, depending on government's policy objective.

Examples of administered prices that are regulated are the following:

- Housing (water, electricity and paraffin)
- Transport (petrol)
- Communication (telephone fees, postage, cell phone calls)

Transport

International crude oil prices

Crude oil prices affect food value chains in several complex ways, from influencing the prices of primary agricultural inputs, to inputs used in value addition processes (e.g., packaging) to the distribution of food. Trends in the crude oil price are therefore an important indicator of trends in prices throughout the food value chain.

Figure 21 shows the trends in the crude oil price. Crude oil prices rocketed in the early part of 2007 to reach a peak of US$145 per barrel in July 2008. The average price per barrel in 2008 was US$97.55 per barrel. The oil price has decreased significantly since the peak in 2008. According to the International Energy Agency (IEA) (2009), the price of oil depends on a multitude of global economic factors, such as economic growth, future demand and supply of oil, and speculation in the oil market.

Tighter credit availability, the slowdown in economic activity as a result of the global financial and economic crises, and less speculation in the oil market are reasons provided by the IEA for the significant drop in oil prices since mid-2008. On an average annual basis, the price decreased by 36.65% from US$97.55 per barrel in 2008 to US$61.80 per barrel in 2009. Unfortunately, this downward trend did not continue during 2010 and the crude oil price increased by 28.8% on an average annual basis. During 2011 the average crude oil price surpassed the 2008 peak and increased further by 39% to an average of $110.64 per barrel. According to the IEA (2012), the world demand for oil surpassed the world supply of oil by 0.6 million barrels per day and the annual growth in demand and supply slowed down from 3.2% to 0.9% in demand and from 2.1% to 1.3% in supply.

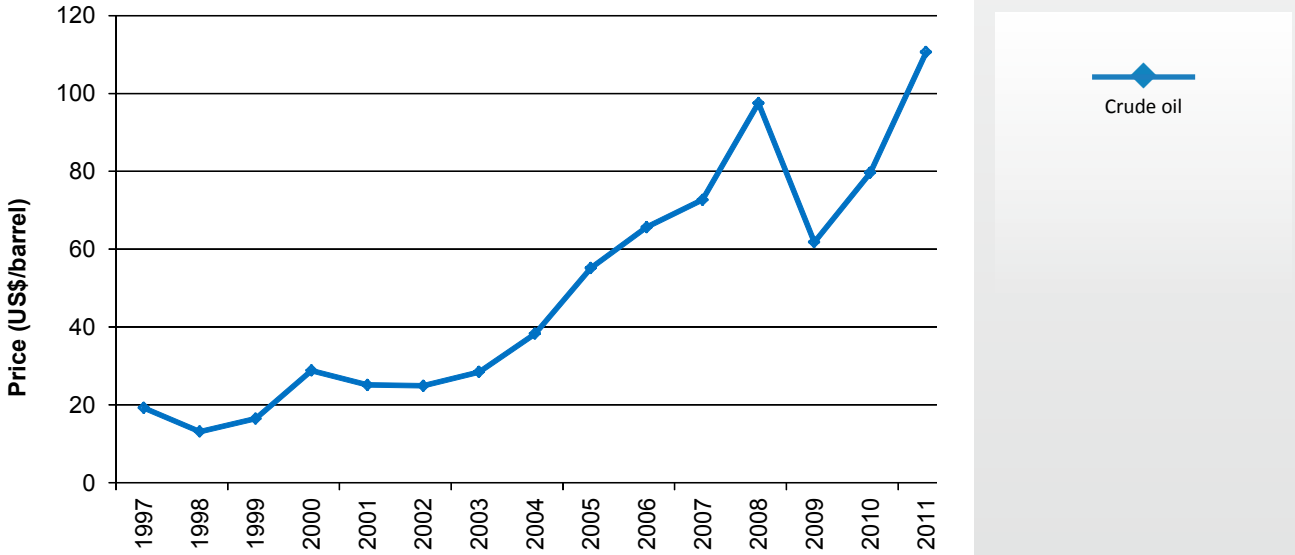


FIGURE 21: CRUDE OIL PRICE (1997–2011)

Source: Grain SA, 2012

Domestic fuel and transport costs

Fuel makes a significant contribution to the variable costs of primary agricultural production, as well as food distribution costs. Figure 22 illustrates trends in the crude oil price and 0.05% sulphur diesel price in Gauteng and at the coast. Variation in the diesel price is affected by the international oil price, the rand/dollar exchange rate and changes in taxes and levies. The crude oil price (dollar per barrel) increased by 476.8% from 1997 to 2011 and the price of 0.05% sulphur diesel in Gauteng and at the coast in-

creased by 383.3% and 401.3%, respectively. The diesel price peaked in 2008, achieving an average rate of R9.27/litre, with R9.34/litre in Gauteng and R9.20/litre at the coast. The average diesel price, however, decreased significantly during 2009 (by 29.7%). Over the same period, the crude oil price decreased by 36.7%.

Price trends for the items depicted between 2010 and 2011 were as follows: 0.05% sulphur diesel in Gauteng increased by 25.3%, 0.05% sulphur diesel at the coast increased by 25.1%, and the crude oil price increased by 39%. It is evident from Figure 22 that the diesel price followed the international oil price with a slight time delay.

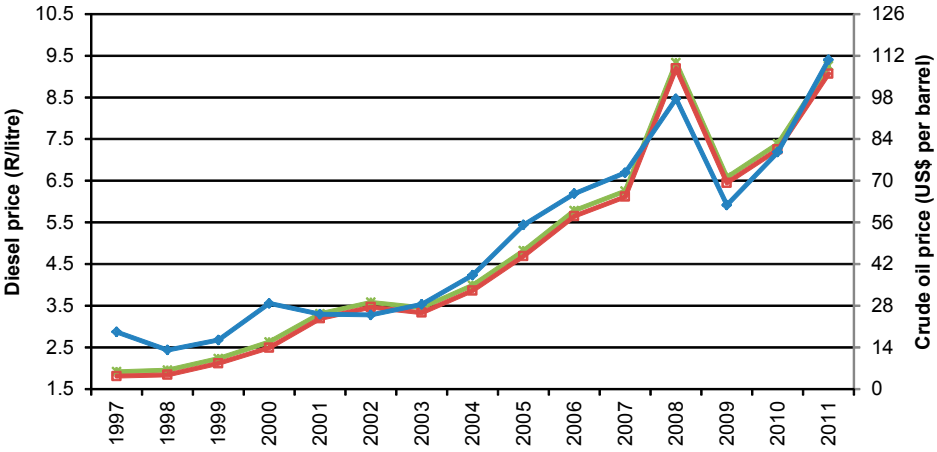


FIGURE 22: DIESEL PRICES IN GAUTENG AND AT THE COAST (2006–2011)

Source: South African Petroleum Industry Association (SAPIA) and Grain SA, 2012

Transport and logistical costs account for a substantial portion of the overall cost of food. The diverse nature, location and size of the various agricultural value chains from farm gate to consumer present a highly complex transport matrix. Furthermore, there is a perception that food prices are driven up by high fuel prices, but never come down when fuel prices drop. Cognisance should be taken of the fact that there are also other cost drivers that affect transport and logistical costs.

Based on the National Freight Database (NFD), three vehicle categories were chosen to represent vehicles typically used to transport agricultural products and livestock. The NFD categorises vehicles by their number of axles. This method is similar to that applied in the calculation of toll road fees.

Figure 23 illustrates the vehicle cost composition over time for different sized vehicles. Fixed costs include depreciation, cost of capital, licence, insurance and wages. Running costs include fuel, oil, maintenance, tyres and incidental costs. The sum of the fixed and running costs is the total operational cost.

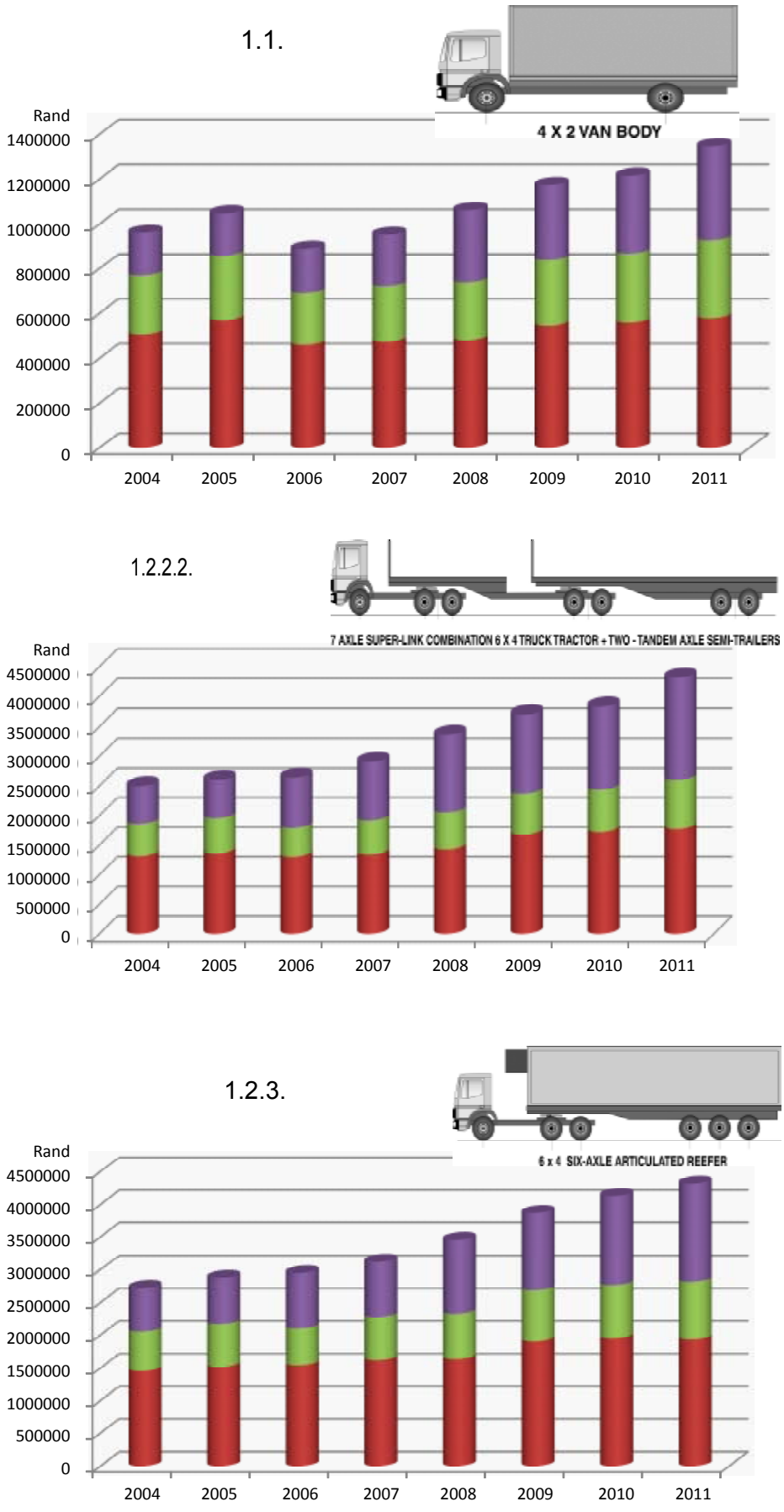


FIGURE 23: VEHICLE COSTS OVER TIME FOR DIFFERENT SIZED VEHICLE (2004–2011)

Source: Max Braun Consulting Services, 2012

Table 10: Vehicle cost changes from 2004 to 2011

2-axle vehicles	6-axle vehicles	7-axle vehicles
Capital cost: 14.5%	Capital cost: 32.9%	Capital cost: 35.3%
Fixed cost: 31.3%	Fixed cost: 47.2%	Fixed cost: 51.3%
Running cost: 120.6%	Running cost: 126.5%	Running cost: 168.7%

Source: Own calculations based on Max Braun Consultancy Services, 2012

Electricity

Figure 24 shows the annual changes in electricity unit costs from 2009 to 2011. For the last three consecutive years, South Africa has had the highest increases for the countries depicted, ranging from 34.8% in 2009 to 27.8% in 2011. As one of the depicted countries, South Africa enjoyed the lowest per unit cost for electricity until 2010. This was followed by Canada, where the unit cost is currently the lowest. During 2011, a kWH cost 8.55 US cents in South Africa, in comparison to 19.7 US cents in Italy, which has consistently been the most expensive country over the last three years.

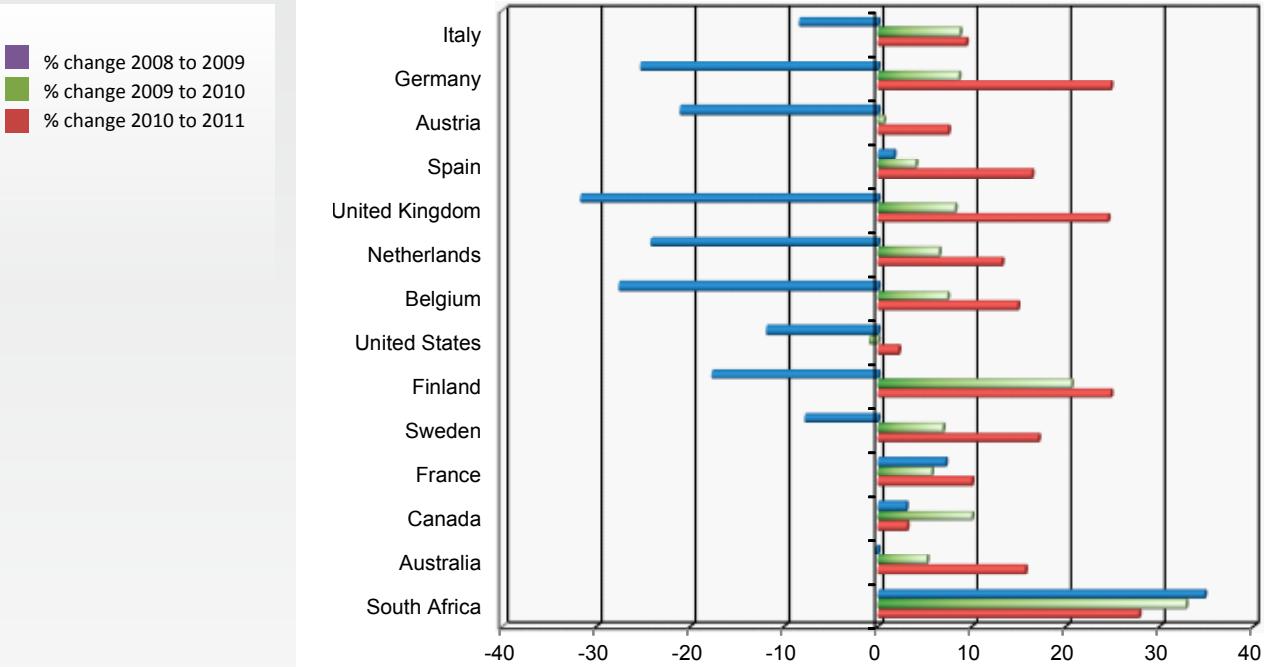


Figure 24: Annual changes in electricity unit cost (2009, 2010 and 2011)

Source: NUS Consulting, 2012

Labour

Figure 25 shows the regulated minimum wages for primary agriculture. This minimum wage is always revised for the beginning of the year. In the past, different wages were distinguished in two different areas, but from 2008 the wages were the same for both the areas. The minimum wage for Area A increased by 71.8% from 2003 to 2011 and the wage for Area B increased by 111.5%. Wages increased by 4.5% between 2010 and 2011.

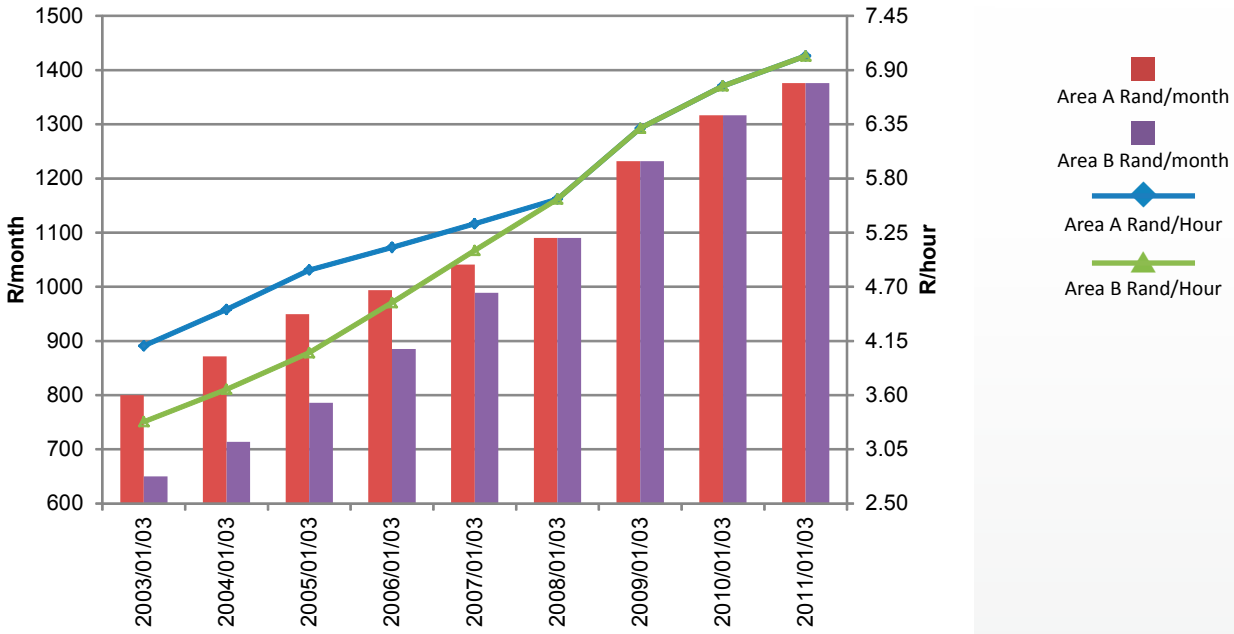


FIGURE 25: MINIMUM WAGES (2003–2011)

Source: Department of Labour, 2012

4 INFLATIONARY TRENDS FOR SELECTED FOODSTUFFS

4.1 Food and non-alcoholic beverages

The Consumer Price Index (CPI) is a social and economic indicator that is constructed to measure changes over time in the general level of the prices of consumer goods and services that households acquire, use or pay for (Stats SA, 2009). The CPI inflation rate indicates the percentage change in the CPI on an annual basis. It compares the CPI of a certain month with the CPI of the same month in the previous year. For 2011, it was 5%, i.e., 0.7 percentage points higher than the average headline CPI rate for 2010 (4.3%). On average, prices were 0.7% higher in 2011 than in 2010.

In order to calculate the CPI, prices for consumer goods and services are classified into 14 different categories. Each of these categories has a weight attached to it that reflects its importance in the CPI. The weights present the portions of consumption expenditure by households in a specific period. The weighted sum of changes in the price of the specific products or services in the CPI provides the rates of inflation. The weight of the food category in the CPI is 14.27, while the weight of food and non-alcoholic beverages is 15.68. Housing and utilities has the largest weight in the CPI of 22.56. Figure 26 shows the different categories and their contribution to the CPI.

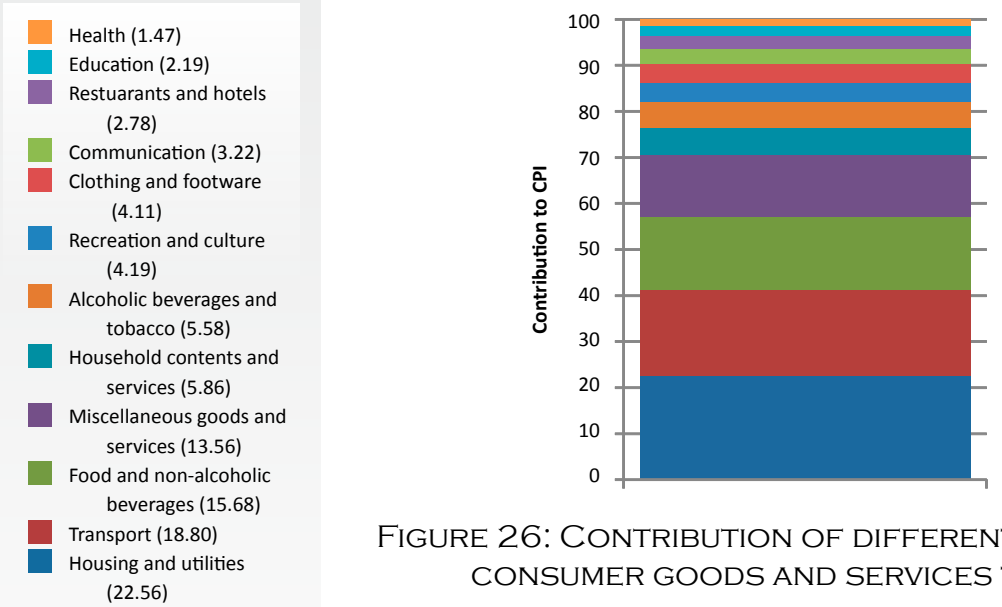


Figure 26: Contribution of different categories of consumer goods and services to the CPI

Source: Stats SA, 2011

The average food and non-alcoholic beverages CPI for 2011 continued to increase when compared to previous years. It was recorded at an average of 119 index points, eight points higher than the 111 index points for 2010. The CPI rate for food and non-alcoholic beverages averaged 7.11% for 2011, indicating that consumers paid 7.11% more for food and non-alcoholic beverages in 2011 than they paid in 2010. Figure 27 shows the CPI for food and non-alcoholic beverages, as well as the CPI rate for food and non-alcoholic beverages.

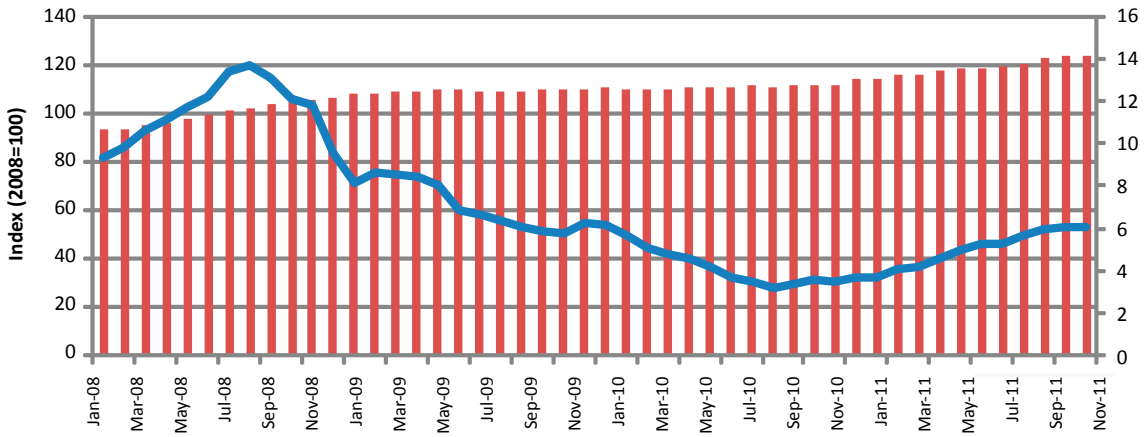


FIGURE 27: CPI AND CPI RATE OF CHANGE FOR FOOD AND NON-ALCOHOLIC BEVERAGES

Source: Stats SA, 2012

Comparing the food and non-alcoholic CPI to the headline CPI provides an indication of the impact of the food and non-alcoholic CPI on the headline CPI. During 2011, the CPI for food and non-alcoholic beverages was higher than the headline CPI rate. This was similar to the experience in 2008 and the larger part of 2009, where the CPI rate for food and non-alcoholic beverages exceeded the headline CPI rate. In 2010, the headline CPI rate was above the CPI for food and alcoholic beverages. Figure 28 shows the headline CPI and the CPI for food and non-alcoholic beverages.

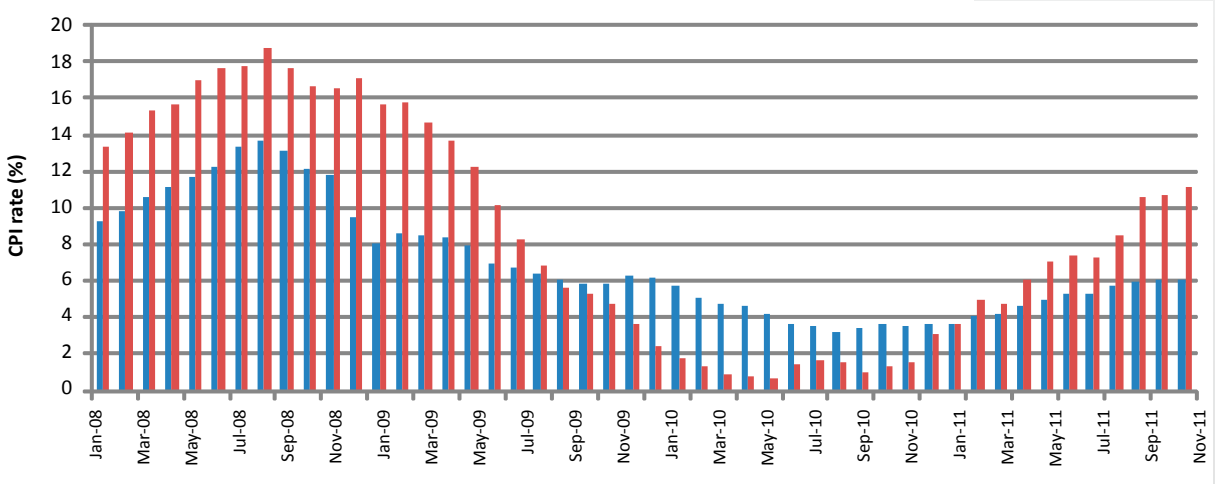
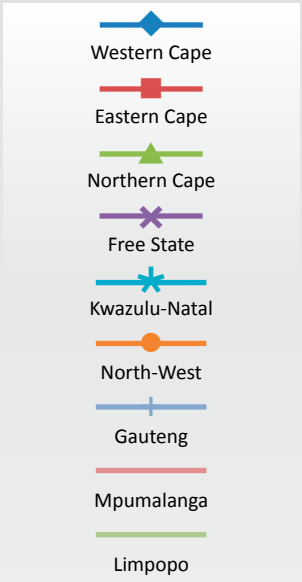


FIGURE 28: HEADLINE CPI RATE AND CPI RATE OF CHANGE FOR FOOD AND NON-ALCOHOLIC BEVERAGES

Source: Stats SA, 2012

A comparison of the CPI for food and non-alcoholic beverages in the different provinces in South Africa shows that the Northern Cape, Western Cape and Eastern Cape experienced the highest increases in food prices in the country. The North West and Limpopo experienced the lowest increases in food and non-alcoholic beverages prices. Figure 29 shows the CPI for food and non-alcoholic beverages for the different provinces on a monthly basis for 2011.



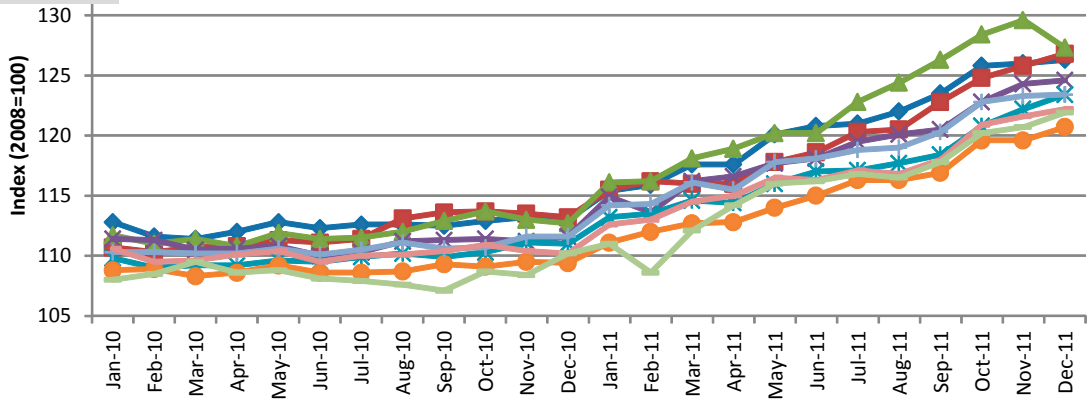


FIGURE 29: CPI FOR FOOD AND NON-ALCOHOLIC BEVERAGES IN THE DIFFERENT PROVINCES IN SOUTH AFRICA

Source: Stats SA, 2012

The food CPI consists of the CPI of all the different food groups, such as bread and cereals, meat, fish, milk, eggs and cheese, oils and fats, fruit, vegetables, sugar, sweets and desserts, and other food products. All these products are assigned different weights, which determine their contribution to the food CPI. The non-alcoholic beverages' CPI consists of two groups: hot beverages and cold beverages.

Figure 30 shows the trends in the CPI for different food items. The price indices of the different food groups show that fish, oils and fats, fruit and sugar, sweets and desserts showed the largest increases in 2011, in comparison to 2010, i.e., the prices increased by 20.88%, 10.87%, 9.72% and 6.85% respectively. The meat and the milk, eggs and cheese price indices showed an increase of 5.84% and 5.49% respectively. Other food products showed the smallest increase of 0.73% on average from 2010 to 2011.

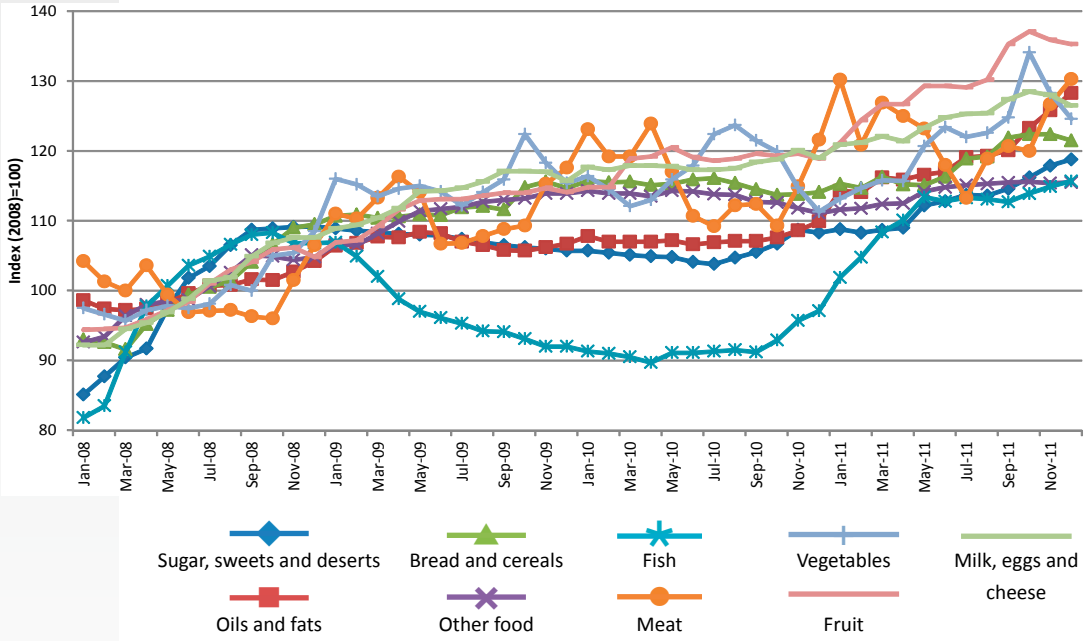


FIGURE 30: CPI FOR DIFFERENT FOOD GROUPS

Source: Stats SA, 2012

The price index for processed and unprocessed products is shown in Figure 31. The index of prices for processed and unprocessed food products increased by 7.9% and 6.6% respectively on average from 2010 to 2011.

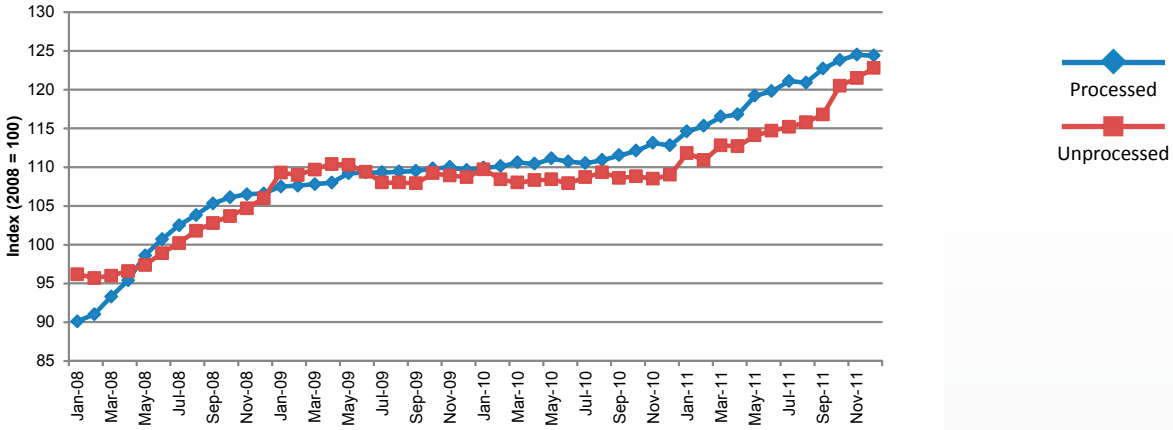


FIGURE 31: CPI FOR DIFFERENT FOOD GROUPS

Source: Stats SA, 2012

4.2 URBAN FOOD PRICE TRENDS

This section provides insight pertaining to the average retail prices of specific food items in urban areas for 2011 and how they compared to the retail prices for 2009 and 2010.

Selected retail prices in the bread and cereal group are shown in Table 11. On average, the retail price of bread and cereals increased by 4.94% from 2010 to 2011. Cake flour prices increased by 12.89% and 13.78% for a bag of 1 kg and 2.5 kg respectively. Maize meal prices also showed an increase of 15.27% and 11.20% for super maize meal (5 kg) and special maize meal (5 kg) respectively.

TABLE 11: AVERAGE ANNUAL RETAIL PRICES FOR CERTAIN FOOD ITEMS IN THE BREAD AND CEREAL GROUP

Bread and cereals	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Cake flour 1 kg	9.10	8.66	9.77	7.38	12.89
Cake flour 2.5 kg	18.01	16.14	18.37	2.01	13.78
Cereals 300 g	17.12	18.20	19.07	11.36	4.79
Cereals 400 g	23.26	25.76	27.58	18.59	7.06
Cereals 450 g	16.07	16.97	16.97	5.62	1.13
Cereals 500 g	20.38	22.05	23.71	16.32	7.50
Cereals 750 g	27.49	29.30	30.89	12.38	5.44
Loaf of brown bread 600 g	5.00	4.93	5.11	2.27	3.56
Loaf of brown bread 700 g	7.12	7.08	7.77	9.19	9.77
Loaf of white bread 600 g	5.86	5.90	6.00	2.39	1.74
Loaf of white bread 700 g	7.88	7.91	8.72	10.66	10.19
Maize special 5 kg*	17.39	16.58	18.43	5.99	11.20
Maize super 5 kg*	23.15	21.78	25.11	8.47	15.27
Rice 500 g	8.29	7.09	6.66	-19.70	-6.03
Rice 1 kg	16.31	13.99	12.70	-22.14	-9.22
Rice 2 kg	25.20	21.36	20.52	-18.57	-3.94
Spaghetti 500 g	10.36	9.49	9.30	-10.24	-2.01
Macaroni plain 500 g*	8.24	7.82	8.14	-1.21	4.18
Porridge 500 g	16.27	16.27	17.92	10.16	4.96

Source: Stats SA; *AC Nielsen 2011

Table 12 shows the retail prices of selected meat products. The average retail price of lamb showed the largest increase of 22.82% on average between 2010 and 2011. Other meat products that showed significant increases were beef brisket, beef T-bone, beef chuck and beef mince, which increased by 15.70%, 14.80%, 13.93% and 13.15% respectively from 2010 to 2011. The average retail price of pork chops increased by 15.27% from 2010 (R49.38 per kg) to 2011 (R52.25 per kg). Fresh chicken potions and whole fresh chicken prices increased by 2.87% and 4.67% respectively, while frozen chicken portions and whole frozen chicken prices increased by 2.28% and 2.86% respectively.

Table 12: Average annual retail prices for certain food items in the meat group

Meat	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Beef brisket – fresh per kg	44.79	45.29	52.40	17.00	15.70
Beef chuck – fresh per kg	46.57	47.01	53.55	15.00	13.93
Beef mince – fresh per kg	47.25	47.68	53.95	14.18	13.15
Beef rump steak – fresh per kg	74.85	76.49	84.77	13.25	10.81
Beef T-bone – fresh per kg	60.56	60.66	69.64	15.00	14.80
Chicken portions – fresh per kg	37.57	37.67	38.76	3.16	2.87
Chicken portions – frozen per kg	24.20	22.04	22.55	-6.85	2.28
Ham per kg	97.83	94.26	92.15	-5.81	-2.24
Lamb – fresh per kg	69.38	74.36	91.33	31.63	22.82
Polony per kg	26.43	26.32	28.05	6.13	6.59
Pork chops – fresh per kg	51.35	49.38	52.25	1.75	5.81
Pork sausage per kg	51.37	52.64	56.51	10.00	7.35
Whole chicken – fresh per kg	28.66	28.28	29.60	3.27	4.67
Whole chicken – frozen per kg	25.82	24.53	25.23	-2.29	2.85

Source: Stats SA; *AC Nielsen, 2011

The prices of selected fish products are presented in Table 13. The retail prices of tinned fish (excluding tuna) 215 g, 425 g and tinned tuna 170 g decreased by 2.78%, 6.43% and 3.54% respectively from 2010 to 2011. However, the retail prices of tinned fish (excluding tuna) 155 g and 400 g increased by 0.2% and 2.69% respectively from 2010 to 2011. The average retail price of tinned fish (excluding tuna) decreased by over 4% in 2011.

Table 13: Average annual retail prices for certain food items in the fish group

Fish	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Fish (excluding tuna) – tinned 155 g	5.91	6.28	6.30	6.56	0.20
Fish (excluding tuna) – tinned 215 g	8.26	8.40	8.16	-1.20	-2.78
Fish (excluding tuna) – tinned 400 g	14.07	12.77	13.12	-6.77	2.69
Fish (excluding tuna) – tinned 425 g	12.35	12.08	11.30	-8.51	-6.43
Tuna – tinned 170 g	10.82	10.20	9.84	-9.01	-3.53

Source: Stats SA, 2011

The retail prices for full cream milk – fresh 1 ℓ, and low fat milk – fresh 1 ℓ decreased by 1.77%, and 20.9% respectively between 2010 and 2011 (see Table 14). The retail price of powdered milk 1kg, increased by 8.62% between 2010 and 2011. The price of total butter 500g increased by 5.85% over the same period.

Table 14: Average annual retail prices for certain food items in the milk group

Milk	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Fresh milk full cream 1 ℓ*	7.04	6.77	6.65	-5.54	-1.77
Fresh milk full cream 2 ℓ*	15.46	15.16	16.41	4.39	8.25
Fresh milk low fat 1 ℓ*	7.18	6.67	6.53	-9.05	-2.09
Fresh milk low fat 2 ℓ*	15.95	15.75	15.80	-0.94	0.32
Skimmed powder milk 1 kg*	56.96	56.01	60.84	6.81	8.62
Total butter 500g*	24.09	25.43	26.92	11.75	5.85

Source: Stats SA; *AC Nielsen, 2011

Table 15 shows the average retail price of eggs and cheese. The retail price of eggs decreased by 0.31%, 0.99% and 1.89% respectively for 0.5 dozen, 1.5 dozen and 2.5 dozen respectively between 2010 and 2011. However, when comparing the average retail price of eggs in 2011 with those in 2009, the prices increased by 4.45%, 22.01% and 2.20% for 0.5 dozen, 1.5 dozen respectively. A 2.5 dozen eggs decreased by 3.53% over the same period. The retail price of cheddar cheese increased by 0.65% between 2010 and 2011.

Table 15: Average annual retail prices for eggs and cheese

Eggs	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Eggs 0.5 dozen	8.88	9.30	9.28	4.45	-0.31
Eggs 1.5 dozen	24.31	25.10	24.85	2.20	-0.99
Eggs 2.5 dozen	34.95	34.37	33.72	-3.52	-1.89
Cheese					
Cheddar cheese per kg	80.07	86.85	87.41	9.17	0.64

Source: Stats SA, 2011

The retail prices for the oils and fats increased from 2010 to 2011 as shown in Table 16. The price of sunflower oil 4 ℓ, sunflower oil 750 mℓ, margarine spread 250 g, margarine spread 1 kg and brick margarine 250 g increased by 32.76%, 21.03%, 18.97%, 18.46% and 10.38% respectively. The retail price of peanut butter 400 g showed the smallest increase between 2010 and 2011.

Table 16: Average annual retail prices for certain food items in the oils and fats group

Oils and fats	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Brick margarine 250 g	9.93	9.30	10.27	3.41	10.38
Margarine spread 250 g	15.62	15.19	18.07	15.70	18.97
Margarine spread 1 kg	30.33	27.49	32.57	7.37	18.46
Medium fat spread 1 kg tub*	20.33	19.70	20.58	1.18	4.45
Total butter 500 g*	24.09	25.43	26.92	11.75	5.87
Sunflower oil 750 mℓ	13.95	13.26	16.05	15.01	21.03
Sunflower oil 4 ℓ	27.47	23.72	31.48	14.63	32.76
Peanut butter 400 g	15.28	16.67	16.81	10.05	0.86

Source: Stats SA; *AC Nielsen, 2011

The retail price of apples and bananas increased by 7.83% and 7.2% respectively between 2010 and 2011 (see Table 17). The retail price of oranges decreased by 0.97% between 2010 and 2011. However, when comparing the price of oranges in 2009 and 2011, there was an increase of 15.74%.

Table 17: Average annual retail prices for fruit

Fruit	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Apples – fresh per kg	11.12	12.29	13.25	19.19	7.83
Bananas – fresh per kg	9.33	9.68	10.38	11.18	7.20
Oranges – fresh per kg	6.31	7.37	7.30	15.74	-0.97

Source: Stats SA, 2011

Table 18 shows the average retail prices for selected vegetable products (fresh vegetables, as well as processed vegetables). Lettuce and canned peas showed the largest price increases. Urban consumers paid 22.72% and 23.24% more for lettuce and canned peas respectively between 2010 and 2011. The average retail price of onions experienced the largest decrease (12.90%) between 2010 and 2011, that is, 0.86%.

Table 18: Average annual retail prices for certain food items in the vegetable group

Vegetables	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Baby carrots 1 kg*	30.63	30.86	31.24	1.99	1.25
Baked beans – tinned 410 g	5.84	6.29	6.29	7.60	-0.03
Baked beans – tinned 420 g	7.16	7.73	8.46	18.26	9.42
Butter beans – tinned 400 g	9.80	10.43	11.55	17.92	10.79
Butter beans – tinned 410 g	10.28	10.72	11.05	7.42	3.09
Butter beans – tinned 420 g	11.57	12.38	12.45	7.61	0.50
Canned peas 410 g*	6.92	6.83	8.42	21.72	23.24
Carrots – fresh per kg	9.40	10.99	11.56	22.91	5.12
Carrots – frozen 1 kg	24.05	26.91	29.50	22.70	9.63
Cauliflower – fresh per kg	21.47	24.80	28.24	31.54	13.91
Chopped peeled tomato 410 g*	10.18	10.71	11.23	10.36	4.84
Corn 1 kg*	27.78	28.85	28.51	2.64	-1.18
Green peas 1 kg*	26.27	24.91	26.82	2.10	7.67
Lettuce – fresh per kg	19.41	21.24	26.07	34.33	22.72
Peas – frozen 1 kg	24.61	24.50	24.93	1.32	1.75
Onions – fresh per kg	9.00	9.52	8.29	-7.88	-12.90
Sliced beans 1 kg*	28.34	29.62	29.04	2.50	-1.96
Potatoes – fresh per kg	9.27	9.18	9.24	-0.29	0.68
Pumpkin – fresh per kg	10.45	11.51	11.32	8.29	-1.67
Sweet corn – tinned 410 g	7.68	8.62	8.89	15.81	3.12
Sweet corn – tinned 420 g	8.81	9.58	8.89	0.96	-7.14
Sweet potatoes – fresh per kg	9.95	9.94	10.14	1.88	1.99
Tomato and onion mix 410 g*	8.36	8.39	8.77	4.81	4.48
Tomatoes – fresh per kg	14.00	14.63	14.52	3.69	-0.77

Source: Stats SA; *AC Nielsen, 2011

The retail price of sugar continued to increase, as shown in Table 19. The retail price of white sugar 1 kg and white sugar 2.5 kg increased by 13.12% and 12.12% respectively from 2010 to 2011. When comparing the sugar prices between 2009 and 2011, an increase of 23.91% and 18.72% was seen for 1 kg of white sugar and 2.5 kg of sugar respectively.

Table 19: Average annual retail prices for sugar

Sugar and sweets	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
White sugar 1 kg	8.52	9.33	10.55	23.91	13.12
White sugar 2.5 kg	17.75	18.80	21.07	18.72	12.12

Source: Stats SA, 2011

The retail price of 100 g instant coffee, 250 g instant coffee and 750 g instant coffee increased by 10.22%, 8.59% and 6.46% respectively between 2010 and 2011 (Table 20). The retail price of 62.5 g Ceylon black tea, 250 g Ceylon black tea and 500 g Ceylon black tea increased by 1.09%, 2.95% and 5.35% respectively during the same period. However, the price of 125 g Ceylon tea decreased by 1.50% between 2010 and 2011.

Table 20: Average annual retail prices for tea and coffee

Tea and coffee	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Ceylon black tea 62.5 g	6.87	7.23	7.31	6.40	1.09
Ceylon black tea 125 g	15.47	16.12	15.88	2.63	-1.50
Ceylon black tea 250 g	17.51	17.74	18.27	4.30	2.95
Ceylon black tea 500 g	32.57	32.92	34.68	6.48	5.35
Instant coffee 100 g	18.20	19.57	21.57	18.49	10.22
Instant coffee 250 g	21.69	22.56	24.49	12.91	8.59
Instant coffee 750 g	48.89	50.53	53.80	10.04	6.46

Source: Stats SA, 2011

4.3 Rural food price trends

This section provides insight into the average price of specific food items in rural areas for 2011 and how they compare to the prices of 2010 and 2009.

Table 21 shows that in 2011, consumers in rural areas paid 9.95% more on average for a loaf of brown bread (700 g) and 11.37% more for a loaf of white bread (700 g) than they did in 2010. The average price of 2 kg of rice and 1 kg of rice decreased by 7.3% and 6.86% respectively between 2010 and 2011.

Table 21: Average annual retail prices for bread and cereals in rural areas

Bread and cereals	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Loaf of brown bread 600 g	6.94	6.55	7.10	2.27	8.42
Loaf of brown bread 700 g	6.90	7.05	7.75	12.43	9.95
Loaf of white bread 600 g	7.35	7.13	7.77	5.69	8.88
Loaf of white bread 700 g	7.75	7.81	8.70	12.21	11.37
Maize meal 12.5 kg	55.83	50.94	55.66	-0.32	9.26
Maize meal 1 kg	7.24	6.44	6.66	-7.95	3.49
Maize meal 2.5 kg	14.57	14.37	14.98	2.84	4.23
Maize meal 5 kg	28.77	26.08	26.40	-8.25	1.24
Rice 1 kg	15.21	13.78	12.83	-15.60	-6.86
Rice 2 kg	29.59	27.17	25.18	-14.89	-7.30
Rice 500 g	7.89	7.13	7.03	-10.83	-1.39
Samp 1 kg	7.15	6.48	6.55	-8.35	1.06
Samp 2.5 kg	13.03	13.52	13.87	-6.47	2.62
Sorghum meal 1 kg	10.64	10.91	11.04	3.68	1.17
Sorghum meal 500 g	6.62	6.13	6.28	-5.12	2.46

Source: Stats SA, 2011

The average price of 2 litre sunflower oil, 500 millilitre sunflower oil, 500 g margarine and 125 g margarine increased by 24.69%, 13.25%, 12.43% and 11.83% respectively between 2010 and 2011 (Table 22). The average price of 410 g peanut butter decreased by 7.06% during the same period.

Table 22 : Average annual retail prices for oils and fats in rural areas

Oils and fats	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Margarine 125 g	5.54	5.78	6.47	16.77	11.83
Margarine 250 g	9.92	9.87	10.73	8.17	8.81
Margarine 500 g	14.03	14.97	16.83	19.98	12.43
Peanut butter 270 g	12.44	13.02	13.23	6.34	1.56
Peanut butter 400 g	15.37	16.82	17.57	14.29	4.46
Peanut butter 410 g	17.01	13.39	12.44	-26.86	-7.06
Sunflower oil 2 ℓ	31.45	25.19	31.41	-0.15	24.69
Sunflower oil 500 mℓ	11.38	9.39	10.64	-6.56	13.25
Sunflower oil 750 mℓ	13.98	13.06	13.82	-1.13	5.86

Source: Stats SA, 2011

Table 23 shows the average retail prices of beans as paid by consumers in rural areas in 2011. The price of 420 g butter beans, 410 g butter beans and 1 kg beans increased by 9.94%, 7.57% and 2.45% respectively between 2010 and 2011. Consumers in rural areas paid 3.04% less for 500 g beans, during 2011.

Table 23: Average annual retail prices for beans in rural areas

Vegetables	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Beans 1 kg	16.82	14.04	14.38	-14.54	2.45
Beans 500 g	8.59	8.47	8.21	-4.45	-3.04
Butter beans 410 g	8.82	9.32	10.03	13.62	7.57
Butter beans 420 g	6.84	8.16	8.97	31.19	9.94

Source: Stats SA, 2011

Consumers in rural areas paid 2.57% and 1.26% more for 500 mℓ full cream long life milk and 1 ℓ full cream long life milk respectively in 2011 when compared to 2010 (Table 24).

Table 24: Average annual retail prices for milk in rural areas

Milk	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Full cream long life milk 1 ℓ	9.88	10.87	11.01	11.38	1.26
Full cream long life milk 500 mℓ	6.72	6.70	6.87	2.32	2.57

Source: Stats SA, 2011

Table 25 shows the price of tagless tea bags and instant coffee paid by consumers from 2009 to 2011. The average price of both tagless teabags and instant coffee increased between 2010 and 2011, with the price of 250 g tagless tea bags and 62.5 g tagless tea bags increasing by 0.72% and 0.43% respectively. The price of 100 g instant coffee and 250 g instant coffee increased by 3.23% and 4.01% during the same period. However, when comparing the prices for 2011 with those for 2009, there was an increase of more than 10%, with the exception of 250 g tagless tea bags, which increased by 6.93% during the same period.

Table 25: Average annual retail prices for tea and coffee in rural areas

Tea and coffee	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
Tagless tea bags 250 g	17.78	18.87	19.01	6.93	0.72
Tagless tea bags 62.5 g	6.99	7.99	8.03	14.92	0.43
Instant coffee 100 g	11.69	13.00	13.42	14.87	3.23
Instant coffee 250 g	23.20	26.07	27.12	16.91	4.01

Source: Stats SA, 2011

The retail price of sugar in the rural areas showed an increase of 9.24%, 8.61% and 7.28% for 2.5 kg white sugar, 1 kg white sugar and 500 g white sugar respectively between 2010 and 2011 (see Table 26).

Table 26: Average annual retail prices of sugar in rural areas

Sugar	2009	2010	2011	Percentage change 2009–2011	Percentage change 2010–2011
White sugar 1 kg	9.61	9.62	10.45	8.76	8.61
White sugar 2.5 kg	20.68	21.70	23.71	14.67	9.24
White sugar 500 g	5.66	5.37	5.76	1.85	7.28

Source: Stats SA, 2011

4.4 Comparison between rural and urban food prices

Table 27 compares the prices of selected products in rural and urban areas. In 2011, consumers in rural areas paid R9.58 more for the basket of products included in Table 27. In 2010, rural consumers paid R13.64 more for the same basket. Products that had significantly higher price differences were 2 kg rice and 750 mℓ sunflower oil.

Table 27: Comparison of rural and urban food prices

Product	Rural retail prices			Urban retail prices			Price difference		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Loaf of brown bread 700 g	6.90	7.05	7.75	7.12	7.08	7.77	-0.22	-0.03	-0.02
Loaf of white bread 700 g	7.75	7.81	8.70	7.88	7.91	8.72	-0.13	-0.10	-0.02
Mielie meal 1 kg	7.24	6.44	6.66	5.61	5.25	5.73	1.63	1.19	0.93
Mielie meal 2.5 kg	14.57	14.37	14.98	11.95	11.55	12.74	2.62	2.82	2.24
Mielie meal 5 kg	28.77	26.08	26.40	23.32	22.08	25.27	5.45	3.99	1.13
Rice 500 g	7.89	7.13	7.03	8.29	7.09	6.66	-0.41	0.04	0.37
Rice 1 kg	15.21	13.78	12.83	16.31	13.99	12.70	-1.11	-0.21	0.13
Rice 2 kg	29.59	27.17	25.18	25.20	21.36	20.52	4.39	5.80	4.66
Margarine spread 250 g	9.92	9.87	10.73	9.93	9.30	10.27	0.00	0.57	0.47
Peanut butter 400 g	15.37	16.82	17.57	15.28	15.59	16.81	0.09	1.23	0.75
Sunflower oil 750 mℓ	13.98	13.06	13.82	13.95	13.26	9.17	0.03	-0.20	4.66
Butter beans – tinned 410 g	8.82	9.32	10.03	10.28	10.72	11.05	-1.46	-1.40	-1.02
Butter beans – tinned 420 g	6.84	8.16	8.97	11.57	12.38	12.45	-4.73	-4.22	-3.47
Full cream milk long life 1 ℓ	9.88	10.87	11.01	9.17	9.56	9.56	0.72	1.31	1.45
Full cream milk long life 500 mℓ	6.72	6.70	6.87	5.92	6.13	8.53	0.80	0.57	-1.66
Ceylon black tea 250 g	17.78	18.87	19.01	15.10	17.51	17.74	2.68	1.36	1.27
Ceylon black tea 62.5 g	6.99	7.99	8.03	6.87	7.23	7.31	0.11	0.76	0.72
Instant coffee 100 g	11.69	13.00	13.42	18.20	19.57	21.57	-6.52	-6.56	-8.14
Instant coffee 250 g	23.20	26.07	27.12	21.69	22.56	24.49	1.50	3.52	2.62
White sugar 1 kg	9.61	9.62	10.45	8.52	9.33	10.55	1.09	0.29	-0.10
White sugar 2.5 kg	20.68	21.70	23.71	17.75	18.80	21.07	2.92	2.91	2.63
Total							**9.46**	**13.64**	**9.58**

Source: Stats SA, 2011

5 TRENDS IN PRICES, FARM VALUES AND PRICE SPREADS

5.1 Introduction

This section provides an overview of the price trends for selected products. Where information is available, international trends are also discussed. This section also provides more detail on the different cost components that contribute to the margin between farm gate prices and the price the consumer pays for selected food items. This is done, among others, by investigating the farm values of selected products and the farm-to-retail price spreads (FTRPS). The farm value is the value of the farm's product's equivalent in the final food product purchased by consumers. Farm values are calculated by multiplying disappearance in quantities on a farm weight basis with the prices received by the farmers. The farm value does not include the value of by-products. The farm value share is computed by dividing the farm value by consumer food expenditures, and is reported in percentages. Over time, the share reflects relative changes in expenditure for farm products, food marketing services and retail food products. The FTRPS is the difference between what the consumer pays for the retail food product and the value of the farm products used in that product. Price spreads measure the aggregate contributions of food manufacturing, distribution, wholesaling and retailing firms that transform farm commodities into final food products.

5.2 Price trends in the meat sector

5.2.1 Poultry industry

Figure 32 shows the FAO Poultry Meat Price Index, Japan, broiler import price and the USA export unit value of broiler cuts. According to the FAO, the Poultry Meat Price Index increased by 14.8% between 2010 and 2011. International poultry prices were also higher than in 2008 and 2009.

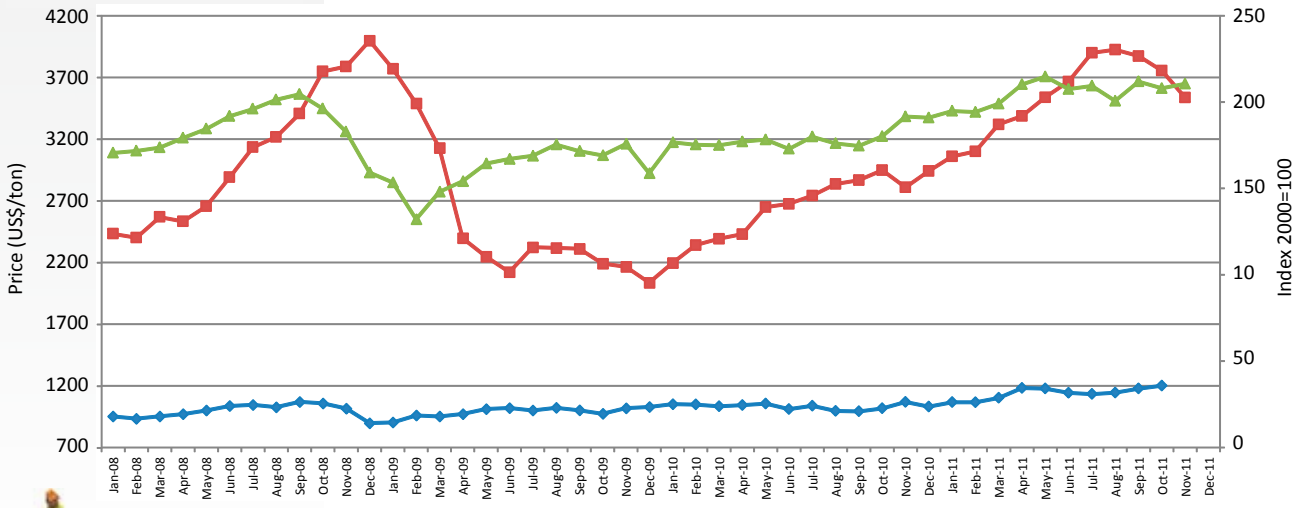


Figure 32: International poultry price trends

Source: FAO, 2012; IMF, 2012

The retail prices for selected poultry products are shown in Figure 33. The retail price of fresh whole chickens increased by 4.7% between 2010 and 2011, while the retail price of frozen whole chickens, fresh chicken portions and frozen chicken portions increased by 2.9%, 2.9% and 2.3% respectively between 2010 and 2011.

Retail prices in real terms showed a negative trend for poultry meat. In real terms, the annual retail price for frozen chicken portions, fresh chicken portions, frozen whole chickens and fresh whole chickens decreased by 2.57%, 2.02%, 1.98% and 0.27% respectively between 2010 and 2011. The real price decreases were even more between 2009 and 2011 (when they ranged between 5.7% and 14.9%).

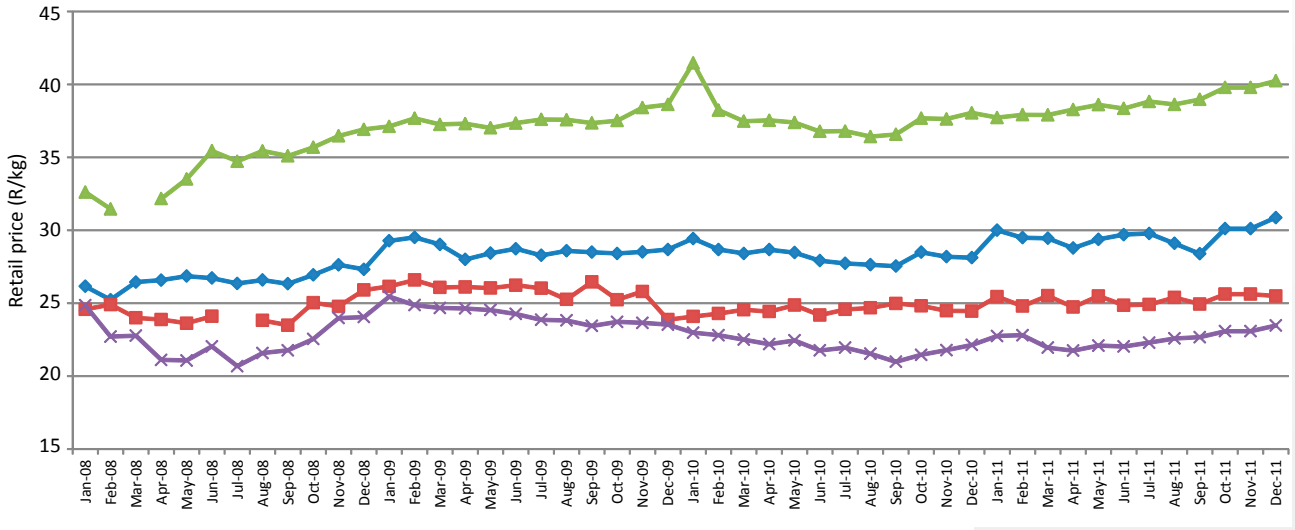


FIGURE 33: POULTRY RETAIL PRICE TRENDS

Source: Stats SA, 2012

Figure 34 shows the trends in the producer prices of poultry. The annual average producer price of frozen chicken increased by 4.2% (from R14.47/kg in 2010 to R15.08/kg in 2011). The annual average producer price of fresh chicken decreased by 3% (from R18.96/kg in 2010 to R18.39/kg during the period under review). Compared to 2008 price levels, the 2011 annual average price of fresh and frozen chickens increased by 10% and 5.4% respectively.

In real terms, frozen chicken producer prices decreased by 7.7% between 2010 and 2011, whereas the fresh chicken producer price decreased by 13.1% over the same period. When compared to 2008, real producer prices decreased by 9.9% and 5.9% for fresh and frozen chicken respectively.

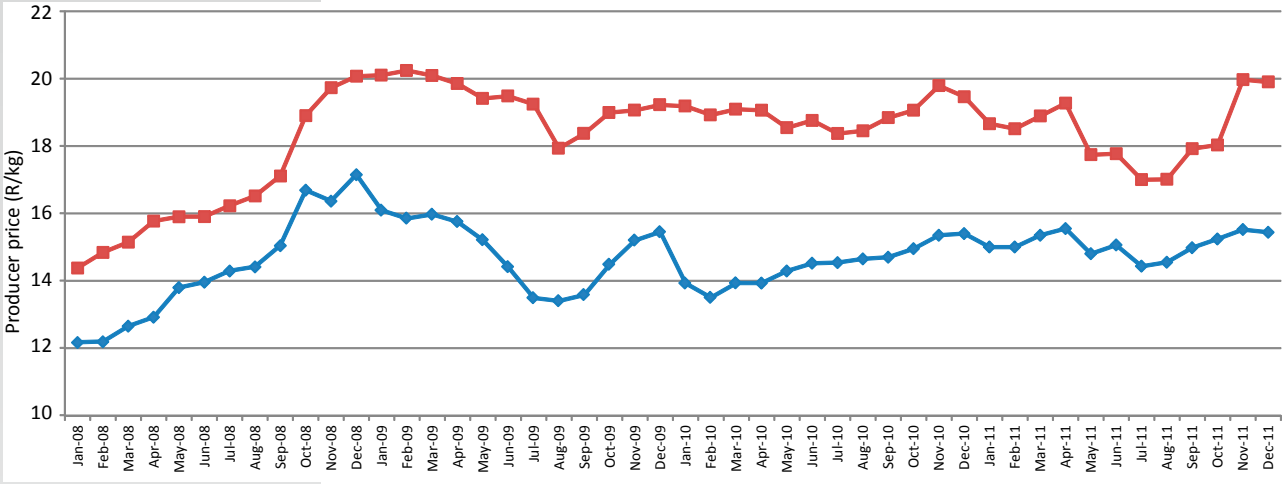


FIGURE 34: POULTRY PRODUCER PRICE TRENDS

Source: Agrimark Trends (AMT), 2011

The real FTRPS and farm value share of fresh whole chickens are shown in Figure 35. The real FTRPS of fresh whole chickens increased by 14.59%, on average, between 2010 and 2011. During the same period, the farm value share of fresh whole chicken decreased by 7.36%. The average farm value share for fresh whole chicken per kg in 2011 was 62.13%.

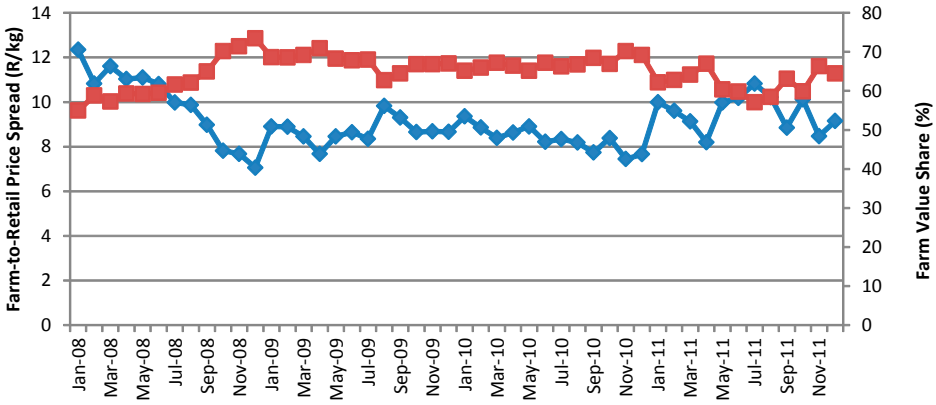


FIGURE 35: REAL FARM-TO-RETAIL PRICE SPREAD AND FARM VALUE SHARE OF POULTRY

Source: Stats SA, 2011; AMT, 2011 and own calculations

5.2.2 BEEF

Figure 36 shows the international beef price trends. According to the FAO Bovine Meat Price Index, the annual average international beef price increased by 12.3% between 2010 and 2011. When comparing the figures for 2009 and 2011, the annual average international beef price increased by 36.5%.

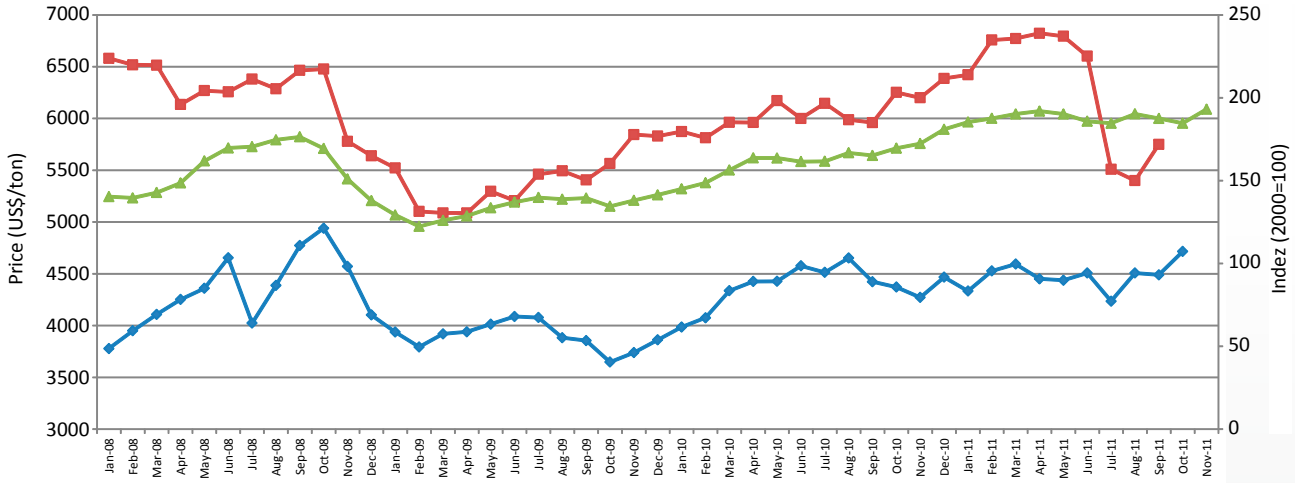


FIGURE 36: INTERNATIONAL BEEF PRICE TRENDS

Source: FAO, 2012; IMF, 2012

The retail price of beef continued to increase, throughout 2011 (see Figure 37). The average retail price for brisket, chuck, t-bone, mince and rump steak increased by 15.7%, 13.9%, 14.8%, 13.2% and 10.8% respectively between 2010 and 2011.

In real terms, the average retail prices for the different beef cuts also showed some increases. The largest increase was seen for beef brisket, which increased by 10.2% between 2010 and 2011. The other cuts increased by 8.5%, 7.7% 5.6% and 9.3% for chuck, mince, rump steak and t-bone respectively between 2010 and 2011.

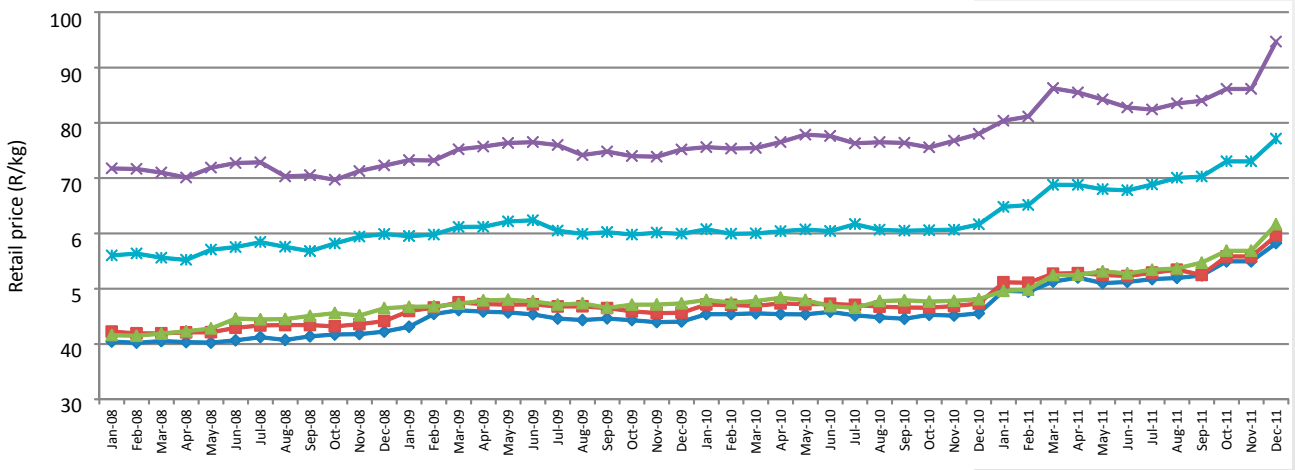


FIGURE 37: RETAIL PRICE TRENDS FOR DIFFERENT BEEF CUTS

Source: Stats SA, 2012

The producer prices for the different classes of beef are shown in Figure 38. The annual average producer price of beef class A2/A3 increased by 19.2% between 2010 and 2011, while that of classes B2/B3 and C2/C3 increased by 21.2% and 24.1% respectively during the same period. In real terms, beef producer prices showed an increasing trend. The annual average real producer price of class A2/A3 increased by 13.4% between 2010 and 2011. On the other hand, the annual average real producer price of classes B2/B3 and C2/C3 increased by 15.4% and 18.1% respectively.

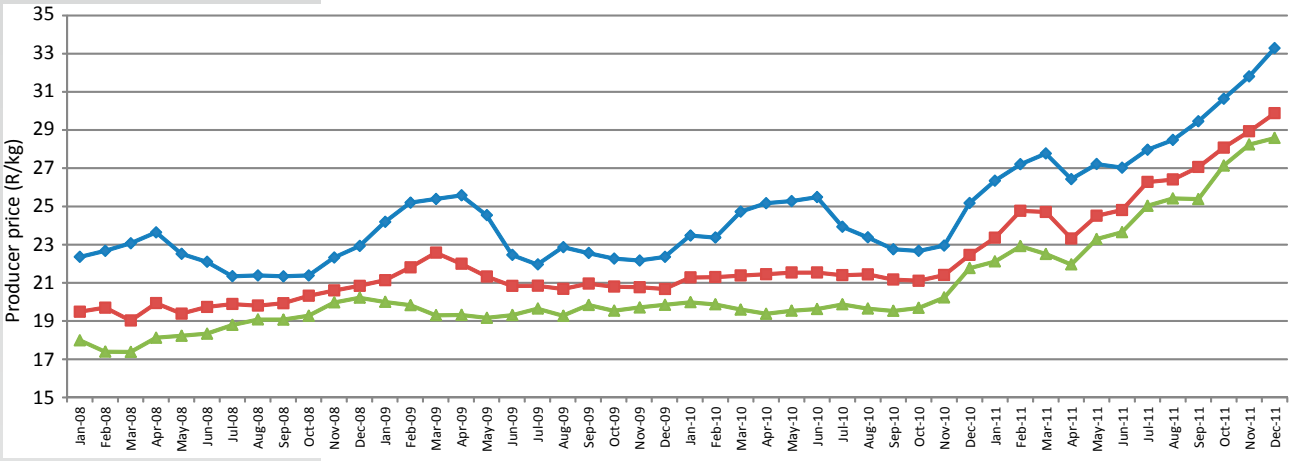


FIGURE 38: BEEF PRODUCER PRICE TRENDS

Source: AMT, 2012

The real FTRPS and the farm value share for beef are shown in Figure 39 below. The average real FTRPS of beef increased by 3.32% between 2010 and 2011 and reached R28.62 in December 2011. The farm value share of beef increased by 5.26% between 2010 and 2011. The farm value share of beef was 46% in December 2011.

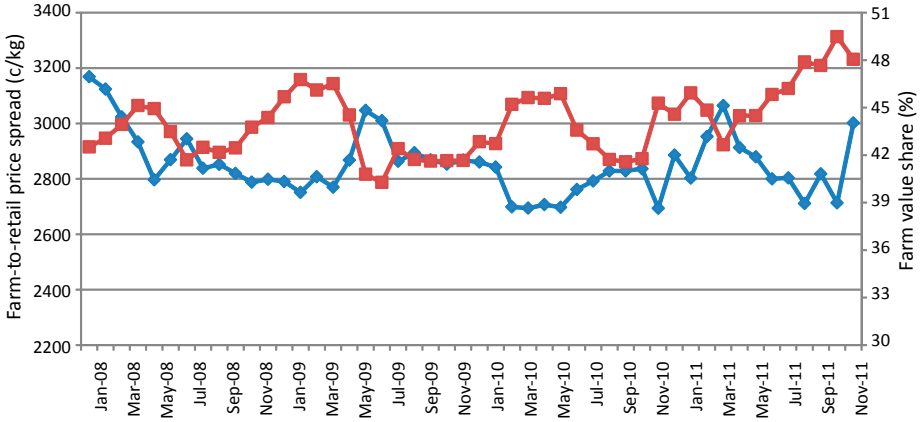


FIGURE 39: REAL FARM-TO-RETAIL PRICE SPREAD AND FARM VALUE SHARE FOR BEEF

Source: Stats SA, 2011; AMT, 2011 and own calculations

5.2.3 LAMB

The international lamb prices continued their upward trend, even in 2011 (Figure 40). According to the FAO Ovine Meat Price Index, the average annual international lamb price increased by 32.7% between 2010 and 2011. When comparing the New Zealand prices for 2011 to those for 2010, the annual average increase in the international lamb price was 55.3%.

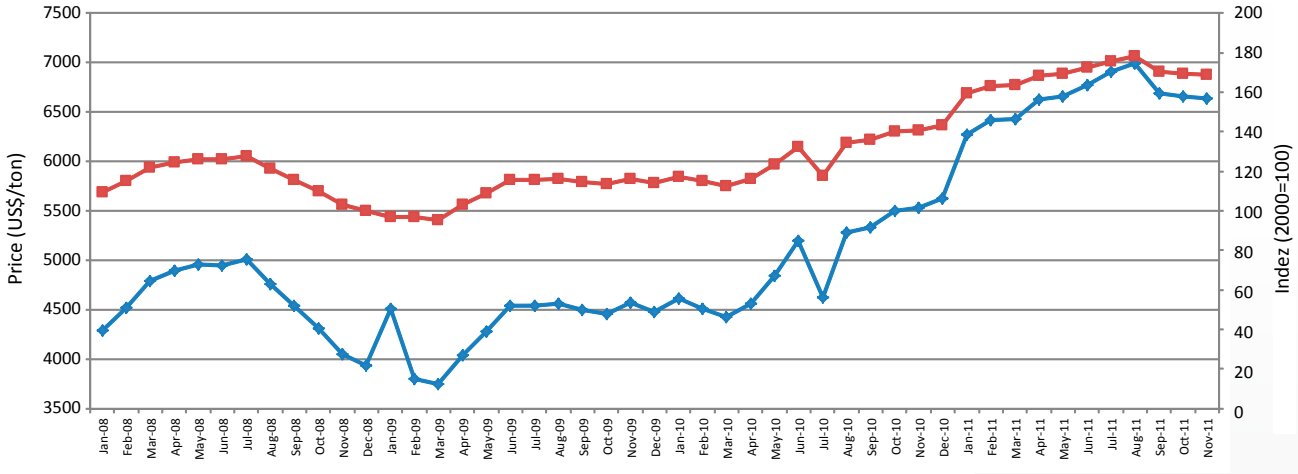


Figure 40: International lamb price trends

Source: FAO, 2012; IMF, 2012

New Zealand, lamb, frozen whole carcasses, wholesale price, Smithfield (London)

FAO Ovine Meat Price Index

The domestic retail prices for lamb continued their increasing trend in 2011 (Figure 41). The annual average retail price of lamb increased by 22.8% between 2010 and 2011. The average annual retail price of lamb was 31.6% higher than the average retail price recorded in 2009. In real terms, lamb prices increased by 17% between 2010 and 2011 compared to the 20.1% increase between 2009 and 2011. These increases had been derived from the producer prices, which also experienced increases during the same period (see Figure 41).

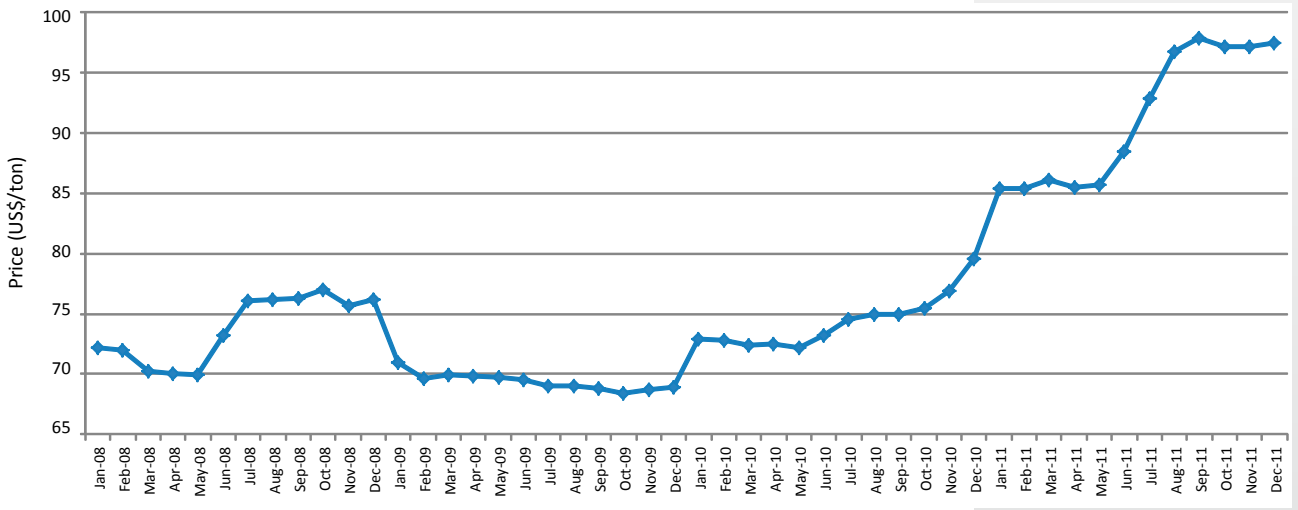


Figure 41: Lamb retail price trends

Source: Stats SA, 2012

Retail price of lamb

Figure 42 shows that the producer price for the different lamb classes has been following an increasing trend over the years. The average producer price of class A2/A3 increased by 19.6% between 2010 (R39.59/kg) and 2011 (R47.34/kg). The annual average producer price for class B and class C2/C3 increased by 26.4% and 24.7% respectively between 2010 and 2011.

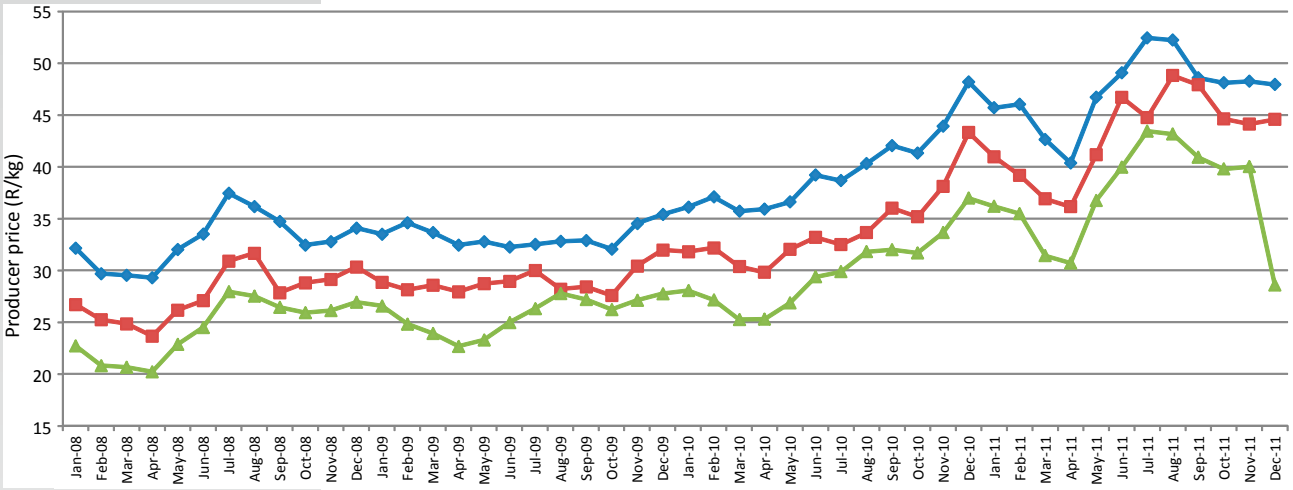


FIGURE 42: LAMB PRODUCER PRICE TRENDS

Source: AMT, 2012

The real FTRPS and the farm value share of lamb are depicted in Figure 43. The real FTRPS of lamb increased by 17.85% between 2010 and 2011 and reached R61.69/kg in December 2011. The farm value share decreased by 1.32% on average between 2010 and 2011.

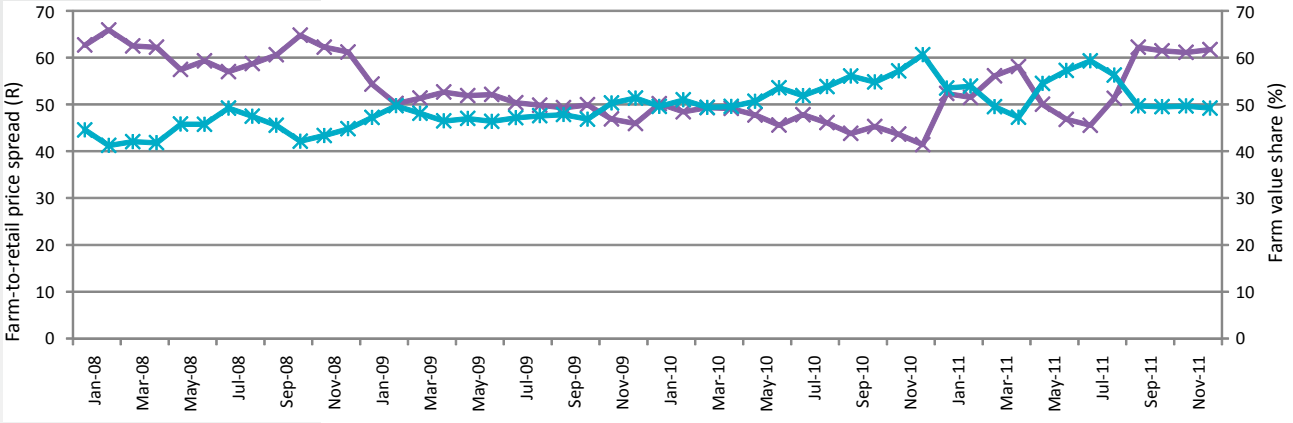


FIGURE 43: REAL FARM-TO-RETAIL PRICE SPREADS AND FARM VALUE SHARE OF LAMB

Source: Stats SA, 2011; AMT, 2011 and own calculations

5.2.4 PORK

According to the FAO Pig Meat Price Index, annual average international pork prices increased by 10.8% between 2010 and 2011. The annual average international pork price increased by 16% between 2009 and 2011.

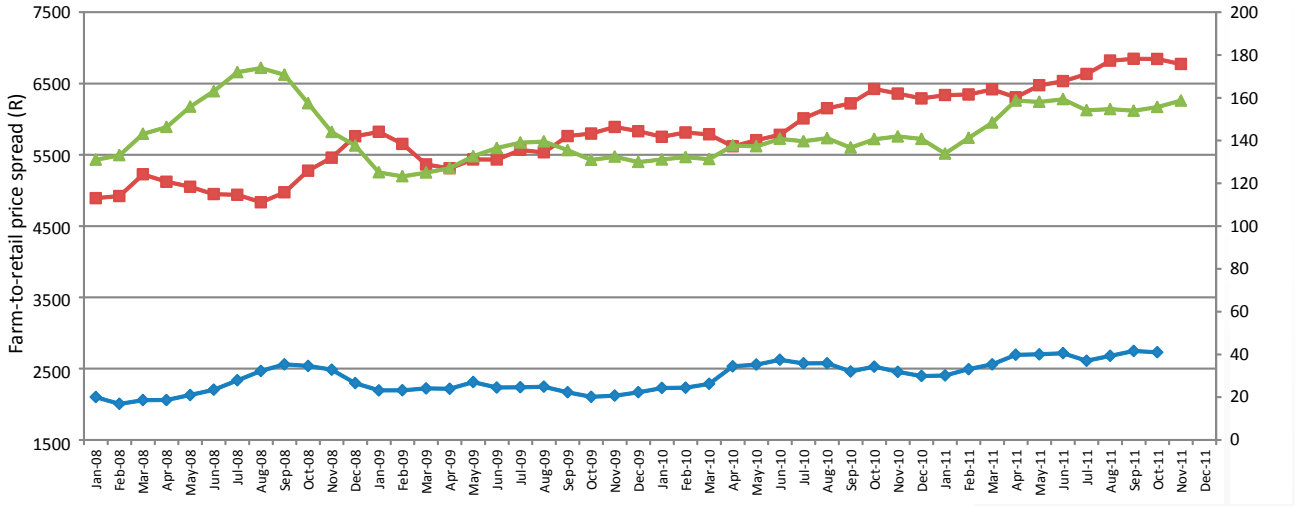


FIGURE 44: INTERNATIONAL PORK PRICE TRENDS

Source: FAO, 2012; IMF, 2012

Figure 45 shows the retail price trends of pork. The retail price of pork chops increased by 5.8% between 2010 (R49.38/kg) and 2011 (R52.25/kg). The annual average retail price of bacon increased by 4.8% (from R88.33/kg in 2010 to R92.61/kg in 2011). In real terms, the average retail price of pork chops increased by 0.8%, whereas the retail price of bacon decreased by 0.1% during the period under review.

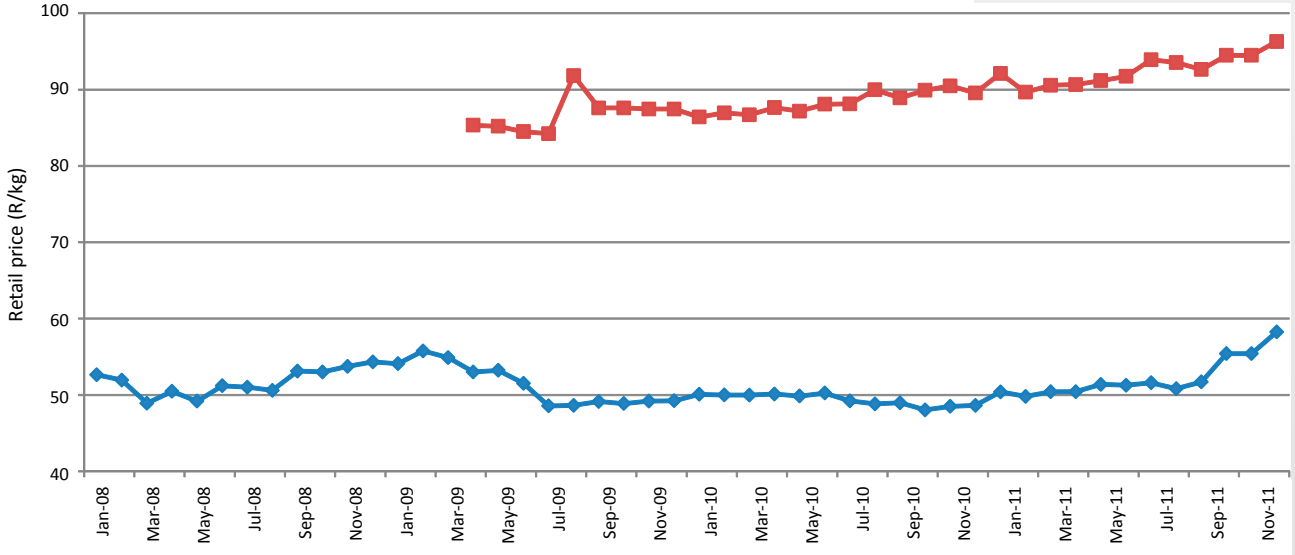


FIGURE 45: PORK RETAIL PRICE TRENDS

Source: Stats SA, 2012

Figure 46 shows that the annual average producer price of porkers and baconers increased between 2010 and 2011. The annual average retail price of porkers and baconers increased by 7.6% and 12.6% respectively between 2010 and 2011. The annual average real producer price increased by 2.4% and 7.2% for porker and baconer respectively.

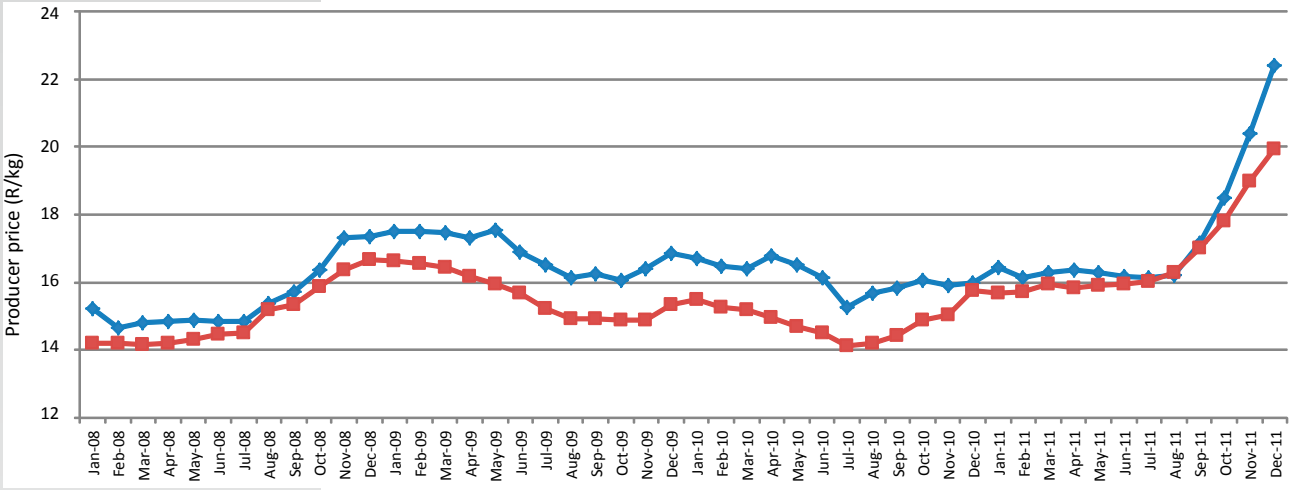


FIGURE 46: PORK PRODUCER PRICE TRENDS

Source: AMT, 2011

Figure 47 shows the real FTRPS and farm value share of pork chops. The average real FTRPS decreased from R363.85 in 2010 to R277.24 in 2011 (-23.8%). The farm value increased by 1.43% on average between 2010 and 2011.

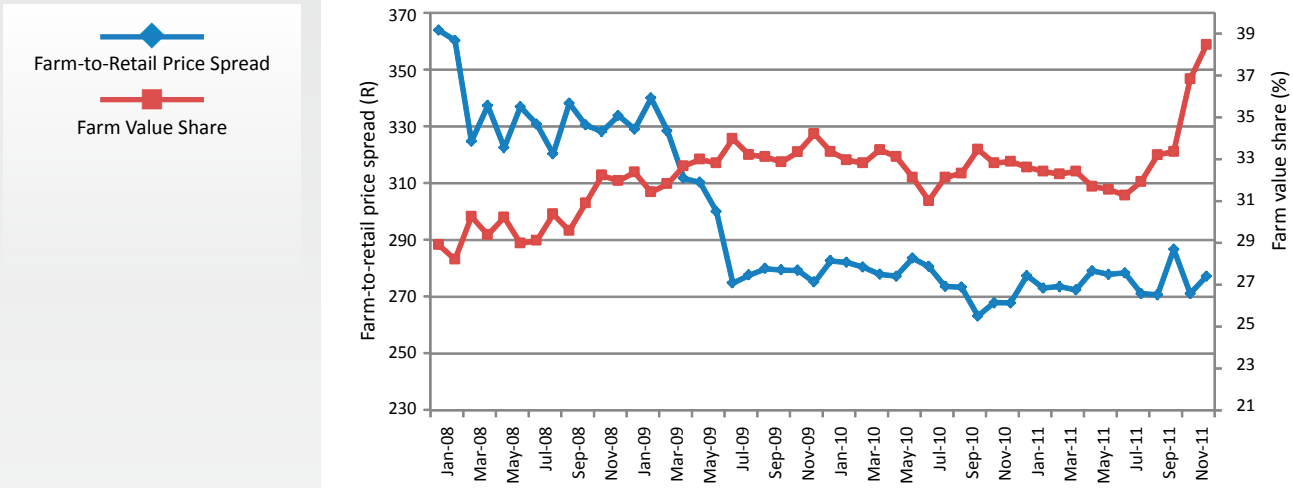


FIGURE 47: REAL FARM-TO-RETAIL PRICE SPREAD AND FARM VALUE SHARE OF PORK

Source: Stats SA, 2012; AMT, 2012 and own calculations

5.3 DAIRY SECTOR

5.3.1 PRICE TRENDS

Figure 48 show the trends in the raw milk price and retail values for full cream and low fat milk between January 2008 and December 2011. The average retail price in 2011 was R8.53/litre and R6.53/litre respectively for full cream and low fat milk. Compared to 2010, full cream milk remained stable at R8.53/litre, but low fat milk was slightly higher at R6.67/litre. Between 2010 and 2011, the price increased, on average, by 0.1% for full cream milk and decreased, on average, by 2.13% for low fat milk. The average raw milk price decreased from R2.95/ℓ to R2.91/litre (-1.27%) between 2010 and 2011.

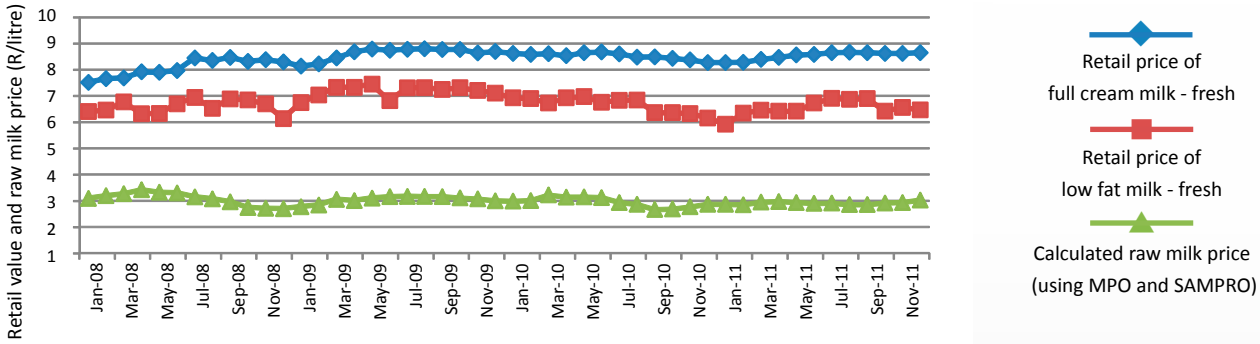


FIGURE 48: RAW MILK PRICE AND RETAIL VALUES FOR FULL CREAM AND LOW FAT MILK, SACHETS (R/LITRE)

Sources: Stats SA, 2012; AC Nielsen, 2012; Milk Producers' Organisation (MPO), 2012; South African Milk Processors' Organisation (SAMPRO), 2012 and own calculations

Cognisance should be taken of the complexity of the different processes involved in sourcing raw milk from a cow until the milk and its by-products are sold. This is important in an attempt to explain the difference between what farmers receive for their milk and what consumers pay for milk (Food Cost Review: 2009).

In order to explain the relationship between the raw milk price and packaged standardised pasteurised milk, a number of assumptions should be made regarding factors such as the fat content of milk produced in South Africa, the price of cream, the production, packaging, administration, marketing and management cost of cream, and the quantity of each fat class of milk (fat free, low fat and full cream) sold (Office of SAMPRO, 2010). Due to the complex process and the number of assumptions that should be addressed, the rest of this section will only discuss the price spread between full cream milk and the retail price of milk.

Figure 49 shows the farm value share as a percentage of the real retail value of full cream milk, between January 2008 and December 2011. In January 2008, the farm value share of full cream milk was 41%. The farm value share of full cream milk increased to peak at 43% in April 2008, after which it declined to reach its lowest point of 31% in September 2010. In December 2011, the farm value share for full cream milk increased slightly to 35%. The average farm value share in 2011 was 34.09%, compared to 34.54% in 2010. Between 2010 and 2011, the farm value share decreased, on average, by 1.32%.

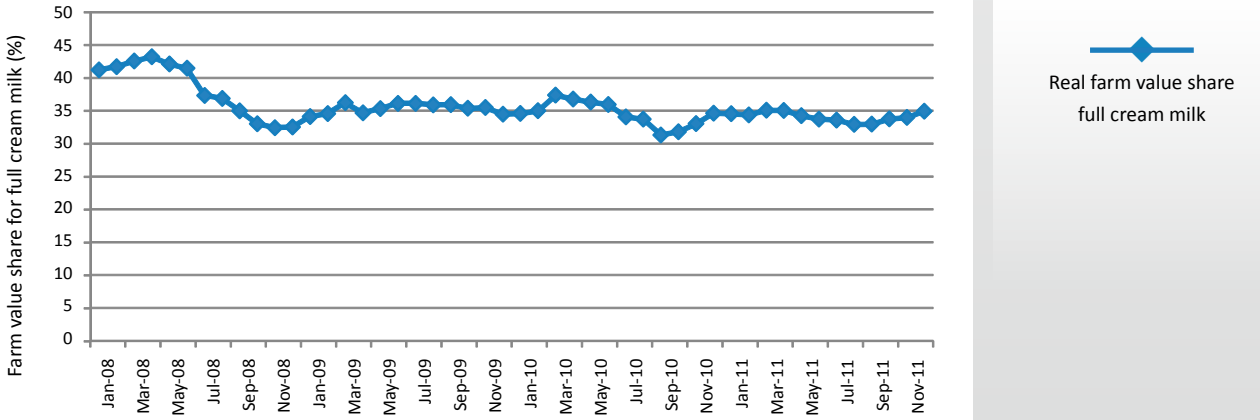


FIGURE 49: REAL FARM VALUE SHARES FOR FULL CREAM MILK, SACHETS (R/LITRE)

Sources: Stats SA, 2012; MPO, 2012; SAMPRO, 2012 and own calculations

Figure 50 shows the trends in the real FTRPS for full cream milk between January 2008 and December 2011. From January 2008, the spread was R4.68/litre and increased to peak at R5.48/litre in December 2008. The real FTRPS then decreased by 14.42% over three years from December 2008 to reach R4.69/litre in December 2011. The average real FTRPS decreased from 5% to 4.8% (-3.95%) between 2010 and 2011.

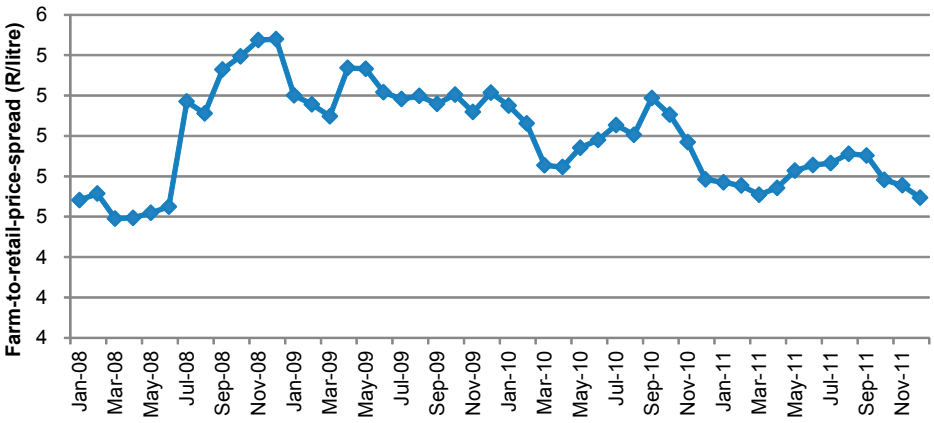


FIGURE 50: REAL FARM-TO-RETAIL PRICE SPREAD FOR FULL CREAM MILK, SACHETS (R/LITRE)

Sources: Stats SA, 2012; MPO, 2012; SAMPRO, 2012 and own calculations

In order to explain the FTRPS for dairy, a simplified diagram was constructed of the activities in the dairy value chain to deliver fresh milk to the consumer. Four main activities were identified, all of which require a diverse set of resources and inputs (Food Cost Review: 2009).

In order to get a better understanding of the margins and costs in the fresh milk dairy chain, industry stakeholders (including the Office of SAMPRO) were consulted with regard to the off-farm value chain. Two different scenarios were constructed to explain the costs and margins in the fresh milk value chain as applicable to full cream pasteurised milk in a 2 litre container. These are:

A low value-added scenario:

- Raw milk close to processing plant
- Less complex technology
- Cheaper with respect to type and size of packaging
- Direct surroundings of distribution
- Limiting marketing and advertising costs

A high value-added scenario:

- Raw milk farther from processing plant
- More complex technology
- Type and size of packaging are more expensive
- Distribution to further outlets
- Marketing and advertising costs

It should be noted that the typical contribution of each value-adding activity to the retail selling price of full cream pasteurised milk in a 2 litre container will differ from firm to firm, from region to region, from one type and size of packaging to another and from season to season.

Information revealed by a number of highly experienced and informed milk processors was requested to indicate what they regard as typical low and high-cost scenarios in

South Africa for each of the value-adding activities. Table 28 shows the distribution costs and margins along the fresh milk dairy chain per action, as described in detail in Food Cost Review: 2009.

Table 28: Typical cost composition of pasteurised full cream milk in 2-litre containers offered for sale in a retail store

	Low Cost		Low cost		Low cost	
	Jan-12		Jan-11		Jan-10	
Item	R/2 ℓ	Percentage of selling price	R/2 ℓ	Percentage of selling price	R/2 ℓ	Percentage of selling price
Raw milk price (2 ℓ)	6.40	38.6	5.70	38.6	5.80	40.3
Action 1:						
Raw milk collection and transportation to processing plant	0.70	4.2	0.53	3.6	0.50	3.5
Action 2:						
Processing and quality assurance	1.50	9.1	1.26	8.5	1.20	8.3
Container (2 ℓ plastic or 2 ℓ gable top)	1.50	9.1	1.37	9.3	1.30	9.0
Filling of 2 ℓ containers	0.12	0.7	0.11	0.7	0.10	0.7
Action 3:						
Marketing and distribution by milk processor	2.55	15.4	2.42	16.4	2.30	16.0
Interest, profit and overhead costs	1.40	8.4	1.37	9.3	1.30	9.0
Selling price to retailer	**14.17**	**85.5**	**12.76**	**86.4**	**12.50**	**86.8**
Action 4:						
Retailer mark-up	2.40	14.5	2.00	13.6	1.90	13.2
Selling price to consumer	**16.57**	**100.0**	**14.76**	**100.0**	**14.40**	**100.0**

	High cost		High cost		High cost	
	Jan-12		Jan-11		Jan-10	
Item	R/2 ℓ	Percentage of selling price	R/2 ℓ	Percentage of selling price	R/2 ℓ	Percentage of selling price
Raw milk price (2 ℓ)	7.30	31.9	6.70	34.2	6.80	35.6
Action 1						
Raw milk collection and transportation to processing plant	0.95	4.1	0.74	3.7	0.70	3.7
Action 2:						
Processing and quality assurance	2.25	9.8	1.47	7.5	1.40	7.3
Container (2 ℓ plastic or 2 ℓ gable top)	2.45	10.7	1.58	8.0	1.50	7.9
Filling of 2 ℓ containers	0.15	0.7	0.11	0.5	0.10	0.5
Action 3:						
Marketing and distribution by milk processor	3.75	16.4	3.47	17.7	3.30	17.3
Interest, profit and overhead costs	2.25	9.8	2.21	11.2	2.10	11.0
Selling price to retailer	**19.10**	**83.4**	**16.26**	**82.9**	**15.90**	**83.2**
Action 4:						
Retailer mark-up	3.80	16.6	3.36	17.1	3.20	16.8
Selling price to consumer	**22.90**	**100.0**	**19.62**	**100.0**	**19.10**	**100.0**

Source: Office of SAMRO and own calculations, 2012

From Table 28, it is evident that in January 2012 the raw milk price contributed between 31.9% and 38.6% of the total selling price to the consumer, whereas in January 2011 it contributed between 34.2% and 38.6%. Action 1 contributes between 4.1% and 4.2% to the total price consumers paid in January 2012. Action 2 (the sum thereof) contributes between 18.9% and 21.2%, while Action 3 (excluding the selling price to the retailer) contributes a significant proportion of between 23.8% and 26.2% in total to the selling price in January 2012.

When considering the individual items of the actions mentioned for January 2012, marketing and distribution by the milk processor (part of Action 3) contributes the greatest off-farm proportion of 15.4% to 16.4% of the selling price. The retailer mark-up (part of Action 4) constitutes approximately 14.5% to 16.6% of the difference between the price the consumer pays and the price at which the retailer procures the milk. This spread includes all costs (e.g., electricity, labour and distribution costs) at retail level. Interest, profit and overhead costs constitute the third largest proportion, which includes depreciation, and administration and management costs.

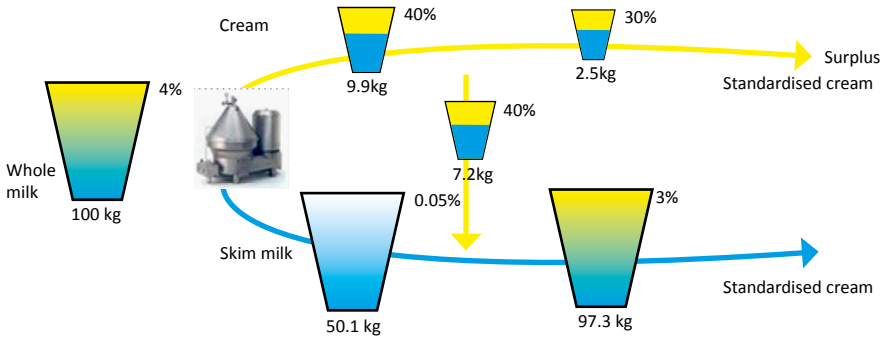
To produce 1 litre of packaged, standardised pasteurised milk, more than 1 litre of raw milk is required as the processes of pasteurisation and packaging create a loss of milk volume and as standardisation of the fat content of milk often means that fat (cream) is removed, which reduces the quantity of the milk that is available to sell. If the fat content of non-standardised raw milk is higher than the fat level required, the quantity of standardised milk will be lower than the quantity of non-standardised raw milk used as input. To reduce the fat content, cream (consisting typically of 40% fat) should be removed from the milk and, as a result, the quantity of milk will be reduced. For example:

100 kg milk with 4% fat (or 4 kg fat):

= 90.1 kg of skimmed milk with 0.05% fat or 0.04 kg fat plus 9.9 kg of cream containing 40% fat or 3.9 kg of fat (the fat of the two products, namely 0.04 kg plus 3.96 kg = 4 kg)

= 97.3 kg of milk with 3% fat or 2.92 kg of fat plus 2.7 kg of cream containing 40% fat or 1.08 kg fat (the fat of the two products, namely 2.92 kg plus 1.08 kg = 4 kg).

The figure below illustrates the treatment of 100 kg whole milk with 4% fat. The requirement is to produce an optimal amount of 3% standardised milk and surplus cream containing 40% fat.



Source: Dairy Processing Handbook, 2003

If the fat content of non-standardised milk is lower than the required level, cream should be added and, as a result, the quantity of standardised milk will be higher than the quantity of milk with a too low fat content, which was used as input.

Figure 51 shows the trends in the powdered milk retail price for 500 g and 1 kg packets between January 2008 and December 2011. The average retail price in 2011 was R36.97 and R32.44 for 500 g and 1 kg powdered milk respectively. Compared to 2010, 500 g powdered milk was slightly lower at R36.90, but 1 kg powdered milk was higher at R33.42. Between 2010 and 2011, the price increased, on average, by 0.18% for 500 g powdered milk and decreased, on average, by 2.93% for 1 kg powdered milk.

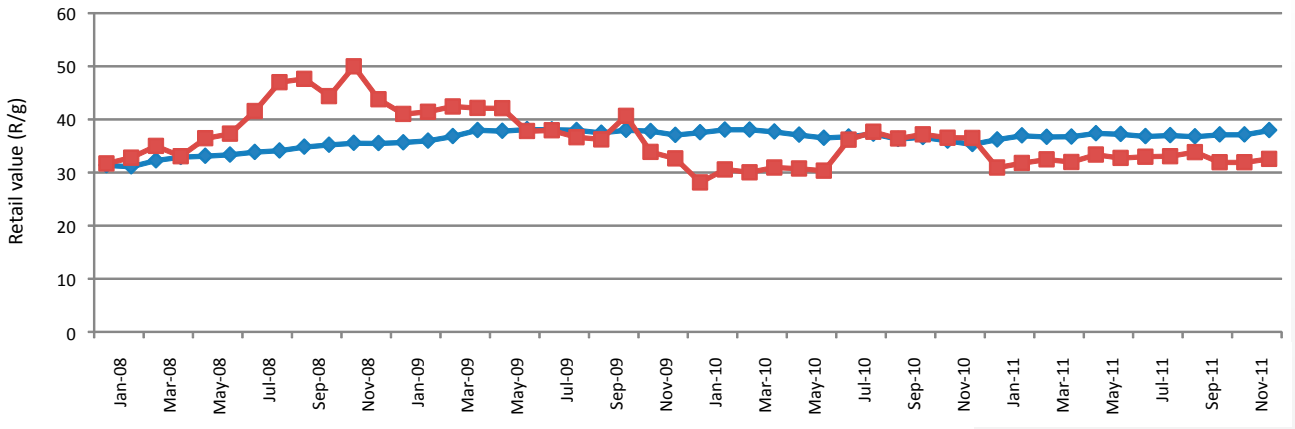


FIGURE 51: RETAIL PRICE OF POWDERED MILK, (R/KG)

Source: Stats SA, 2012

5.4 PRICE TRENDS IN THE MAIZE SECTOR

5.4.1 PRODUCTION, CONSUMPTION AND STOCK LEVELS OF WHITE MAIZE

White maize is the primary staple feed in South Africa and 80% is used in the processing of maize for human consumption, mainly in the form of maize meal. South African farmers produced enough white maize for local demand in 2011, as illustrated in Figure 52.

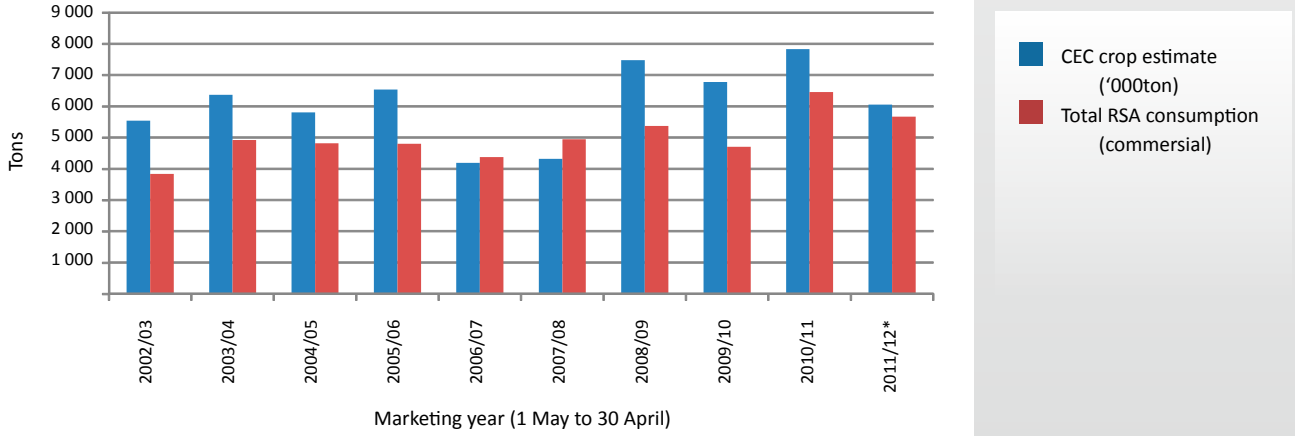


FIGURE 52: DOMESTIC WHITE MAIZE PRODUCTION AND CONSUMPTION

Source: South African Grain Information Service (SAGIS) and Grain SA, 2012

*Estimate

Stock levels for white maize came under pressure during the last 6 months of 2011 due to higher than expected exports. The stock levels were the lowest they have been in the past 15 years. Figure 53 illustrates the carry-out for white maize and the required pipeline (consumption for 45 days) of 706 000 tons. Carry-out as a percentage of commercial demand was also the lowest it has been in the past 15 years.

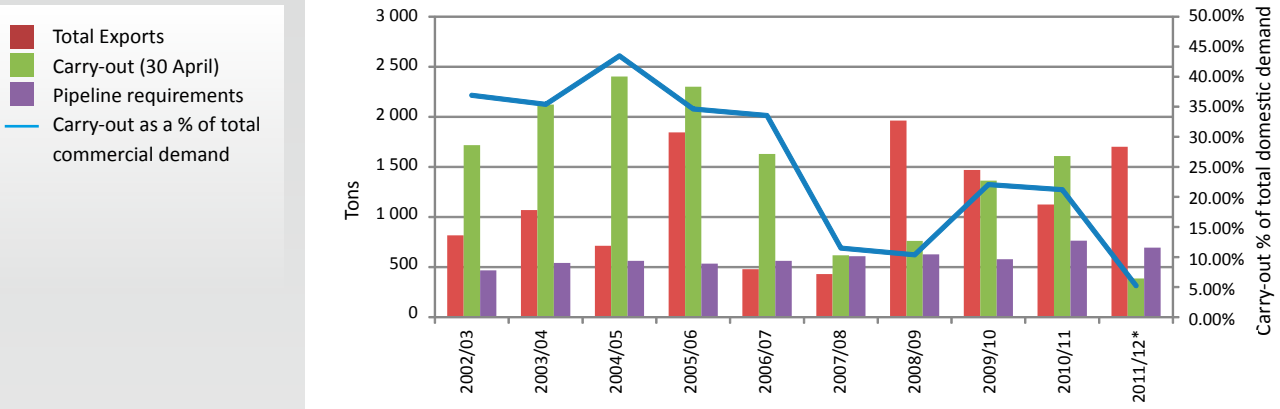


FIGURE 53: TOTAL WHITE MAIZE EXPORTS, PIPELINE REQUIREMENTS, CARRY-OUT AND CARRY-OUT AS A PERCENTAGE OF TOTAL DOMESTIC DEMAND

Source: SAGIS, Grain SA, 2011

*Estimate

The per capita consumption of white maize has increased from 84.4 kg to 112.1 kg over the last 10 years, as illustrated in Figure 54. The average consumption over the same period was 103.9 kg.

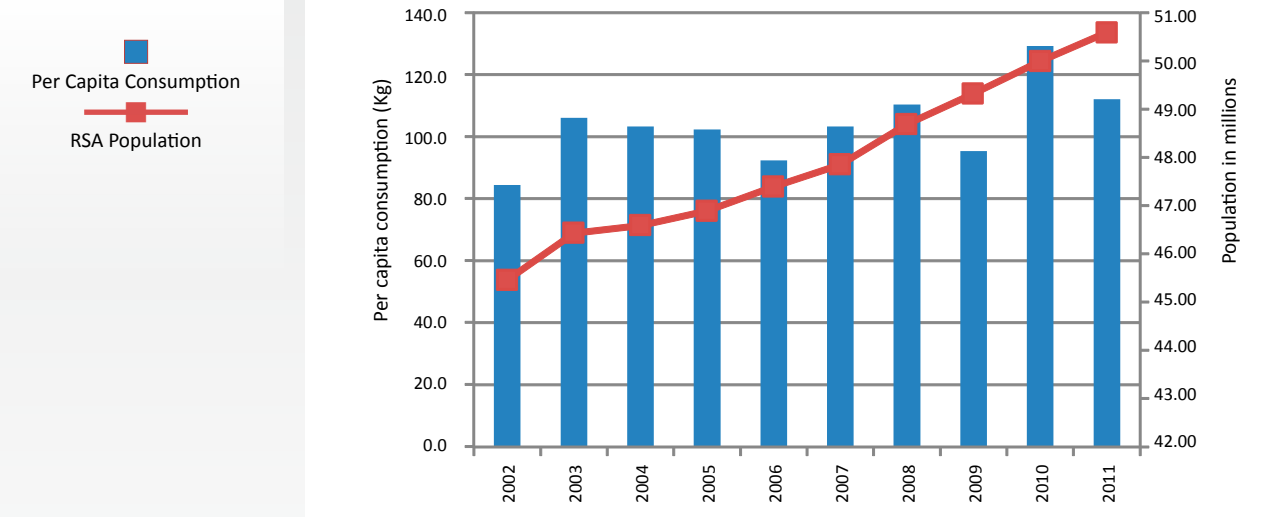


FIGURE 54: PER CAPITA CONSUMPTION AND POPULATION

Source: SAGIS, Stats SA, 2011 and own calculation

5.4.2 PRODUCTION, STOCK LEVELS AND CONSUMPTION OF YELLOW MAIZE

Yellow maize is primarily used in the feed industry. Around 10% is used for human consumption. South African famers produced enough yellow maize in relation to its consumption, as illustrated in Figure 55.

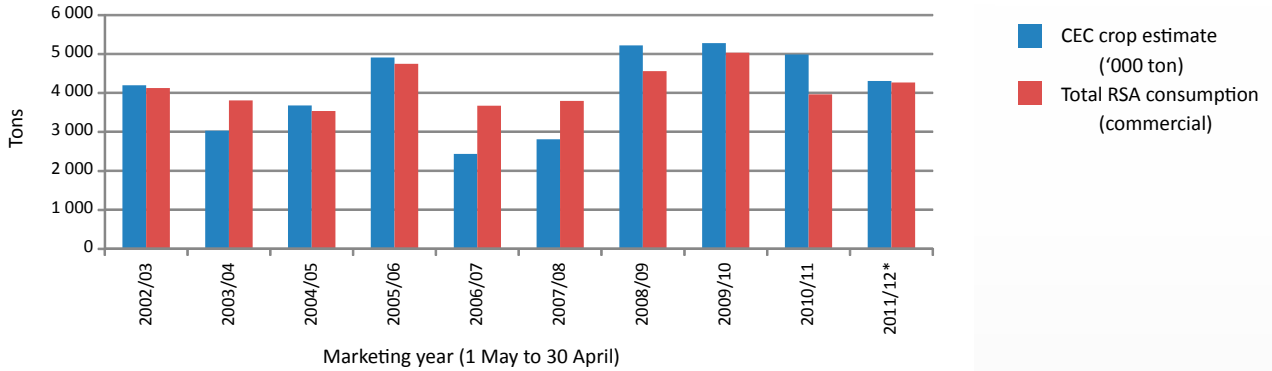


FIGURE 55: DOMESTIC YELLOW MAIZE PRODUCTION AND CONSUMPTION

Source: SAGIS, Grain SA, 2011 and own calculations

*Estimate

Stock levels for yellow maize also came under pressure due to higher than expected exports in 2011. The stock levels are the lowest they have been in the past 15 years. Figure 56 illustrates the carry-out for yellow maize and the required pipeline (consumption for 45 days) of 499 000 tons. Carry-out as a percentage of commercial demand is also the lowest it has been in the past 15 years.

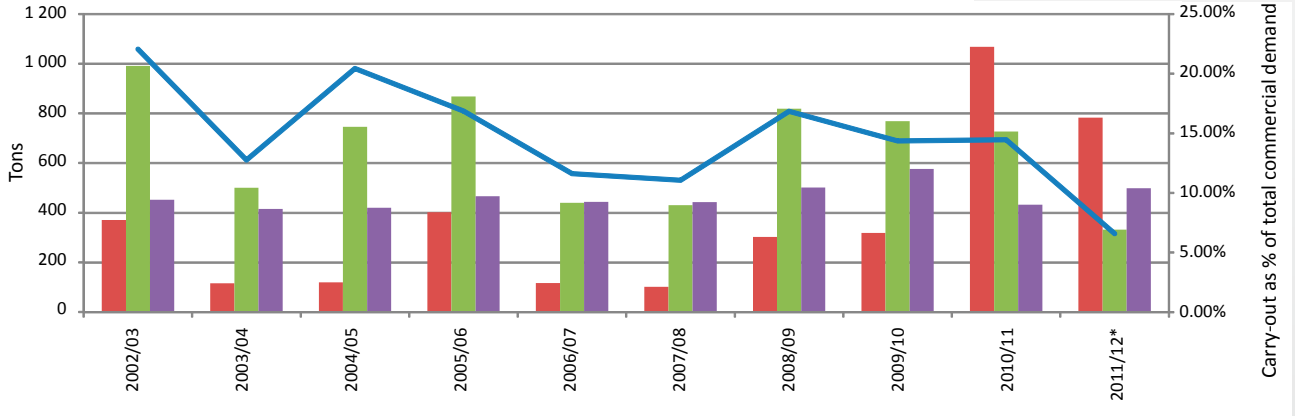


FIGURE 56: TOTAL YELLOW MAIZE EXPORTS, PIPELINE REQUIREMENTS, CARRY-OUT AND CARRY-OUT AS A PERCENTAGE OF TOTAL DOMESTIC DEMAND

Source: SAGIS, Grain SA, 2011 *Estimate

5.4.3 THE SOUTH AFRICAN MAIZE BALANCE SHEET

White maize is predominately used for human consumption and yellow maize for animal feed. This could change occasionally, depending on the price difference between white and yellow maize. If white maize trades below yellow maize, then feed manufacturers tend to use white maize in their feed rations. If yellow maize trades below white maize, then the same tendency does not normally happen in the market, due to the sophisticated preference of the maize meal market. Table 29 illustrates the breakdown of consumption and supply for the 2011/12 season.

Table 29: South African maize balance sheet for the 2011/12 season

Item	White maize	Yellow maize	Total
	2011/12*	2011/12*	2011/12*
Area planted ('000 ha)	1 418	954	2 372
CEC crop estimate ('000 ton)	6 052	4 308	10 360
Yield (ton/ha)	4.27	4.52	4.37
Commercial supply	**000 ton**	**000 ton**	**000 ton**
Opening stocks (1 May)	1 609	727	2 336
Commercial deliveries	6 052	4 308	10 360
Imports	95	350	445
Commercial supply	**7 756**	**5 385**	**13 141**
Commercial consumption	**000 ton**	**000 ton**	**000 ton**
Food	4 300	390	4 690
Feed	1 250	3 600	4 850
Other consumption	119	280	399
Total exports	1 700	783	2 483
Total commercial demand	7 369	5 053	12 422
Carry-out (30 April)	387	333	720
Pipeline requirements (consumption for 45 days)	694	499	1 193
Surplus above pipeline	**-307**	**-166**	**-473**
Carry-out as a percentage of RSA consumption	6.83%	7.79%	7.24%
Carry-out as a percentage of total commercial demand	5.25%	6.58%	5.79%

Source: GrainSA, 2011 *1 May 2011 to 30 April 2012

South Africa is self-sufficient in terms of its maize production for both the feed market and for human consumption. Stock levels for yellow and white maize are the lowest they have been for the past 15 years.

5.4.4 White maize price trends

Figure 57 explains the trends in the price of white maize in South Africa. The average spot price for white maize for January 2011 was R1 368 per ton. The lowest level (R1 256 per ton) was reached on 5 January 2011. The average price for December 2011 was R2 459 per ton. The highest level (R2 564 per ton) was reached on 30 December 2011. Import and export parity prices (Randfontein) for white maize increased from the beginning of 2011 (10 Jan 2011), when it was R2 492 and R1 403 per ton respectively, to the end of September, when it reached a high of R3 906 and R2 614 per ton respectively. It then decreased to R3 002 and R1 695 per ton respectively at the end of December 2011. This decrease can be attributed to a decrease in world prices and a decrease in the premium for white maize. South African white maize (spot) trade for the first six months of 2011 was below export parity. It then traded at export parity levels for the next four months, after which trade moved between R2 350 and R2 560 per ton for the last two months of the year. This can also be seen as a highlight of 2011, as illustrated in Figure 57. Relatively low South African prices initiate and stimulate export programmes for South African white maize to new destinations like Mexico, Venezuela and Korea.

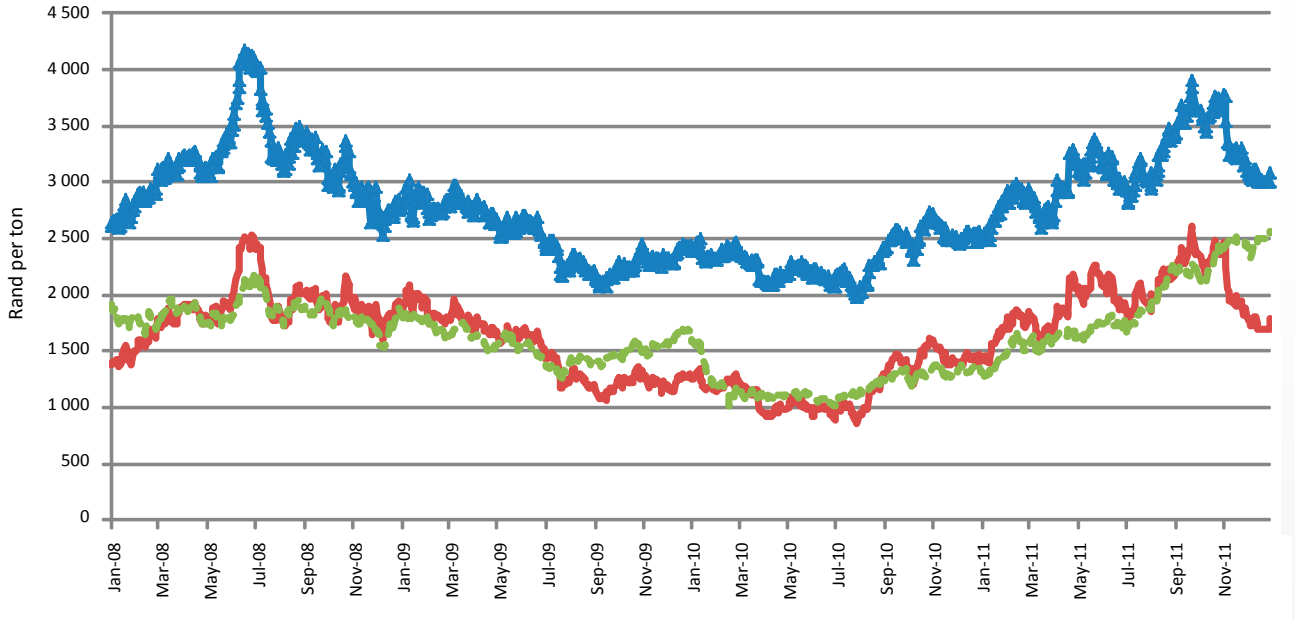


FIGURE 57: IMPORT PARITY, EXPORT PARITY AND SAFEX WHITE MAIZE PRICE

Source: GrainSA, 2011

5.4.5 YELLOW MAIZE PRICE TRENDS

Figure 58 explains the trends in the price of yellow maize in South Africa. The average spot price for yellow maize for January 2011 was R1 478 per ton. The average for December 2011 was R2 624 per ton. The lowest level for 2011 (R1 362 per ton) was reached on 5 January 2011 and the highest level (R2 674 per ton) was reached on 29 December 2011. Import parity prices (Randfontein) for yellow maize moved between R2 434 and R3 269 per ton. Export parity moved between R1 346 per ton at the beginning of 2011 and R1 976 per ton towards the end of the year. Relatively low South African prices initiated and stimulated export programmes for South African yellow maize. Stock levels came under pressure and therefore prices moved away from export parity.

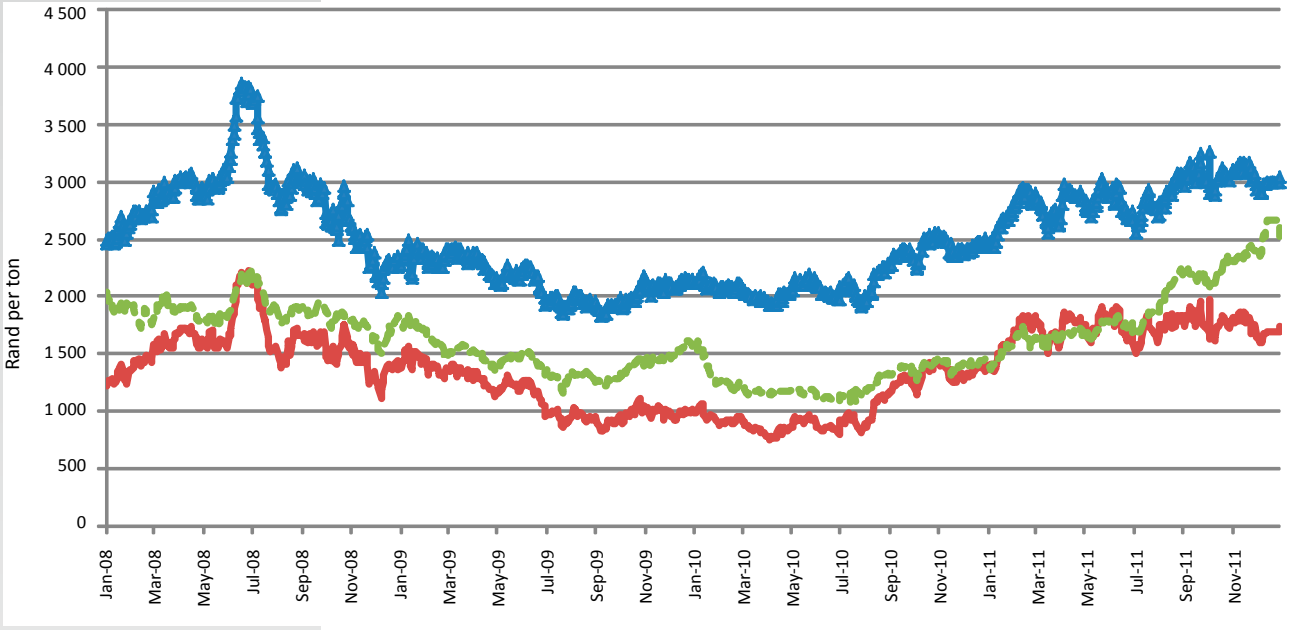


FIGURE 58: IMPORT PARITY, EXPORT PARITY AND SAFEX YELLOW PRICE

Source: Grain SA, 2011.

5.4.6 REAL FARM GATE PRIZE AND THE REAL RETAIL VALUE OF SPECIAL AND SUPER MAIZE MEAL

Figure 59 shows the trends in the real farm gate prize and real retail value of special maize meal between January 2005 and December 2011. The real farm gate price for special maize meal increased from mid-2005 and peaked at R2 372 per ton in July 2007, after which it declined gradually to reach R1 269 per ton in November 2009. The real farm gate prize increased to R1 566 per ton in April 2010 and decreased to R938 per ton in September 2010. Between December 2010 and December 2011, the real farm gate price of special maize meal increased by 85.4%. The real retail value of special maize meal followed a similar trend, but peaked later at R3 598 per ton in December 2008, after which it declined to reach R2 499 per ton in December 2010, and increased by 47.2% to R3 641 per ton. This is the highest level to be reached since July 2007.

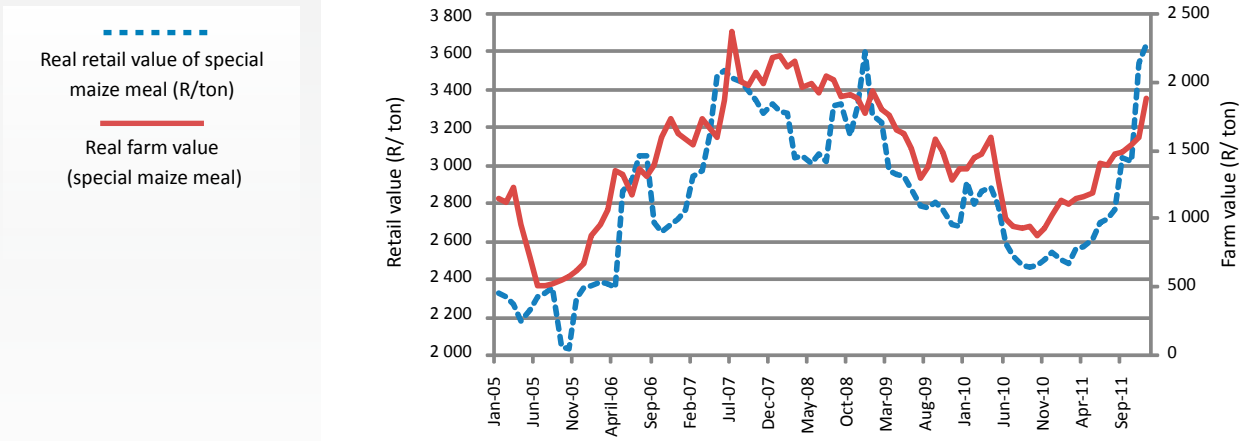


FIGURE 59: REAL RETAIL VALUE AND FARM VALUE OF SPECIAL MAIZE MEAL

Source: South African Futures Exchange (SAFEX), Stats SA and own calculations, 2011

Figure 60 shows the trends in the real farm gate price and real retail value of super maize meal between January 2005 and December 2011. The real farm gate price of super maize meal increased from R638 per ton in mid-2005 and peaked at R2 933 per ton in July 2007. The real farm gate price decreased with 172% between July 2007 (R2 933 per ton) and December 2010 (R1 256 per ton) and increased by 116% to R2 335 in December 2011. The real retail value of super maize meal later peaked at R4 211 per ton in December 2008 and declined to reach R3 504 per ton in December 2010, increasing again to R4 644 in December 2011. This level was also the highest level for the depicted period.

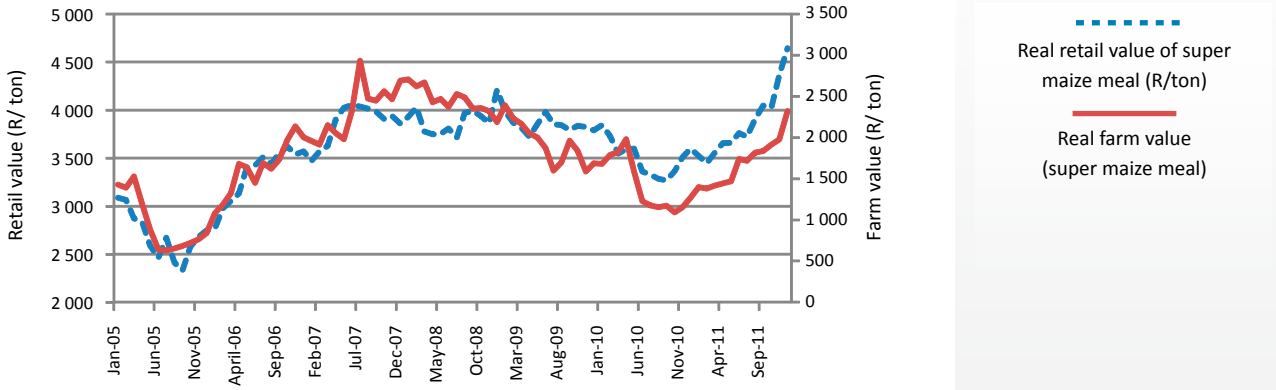
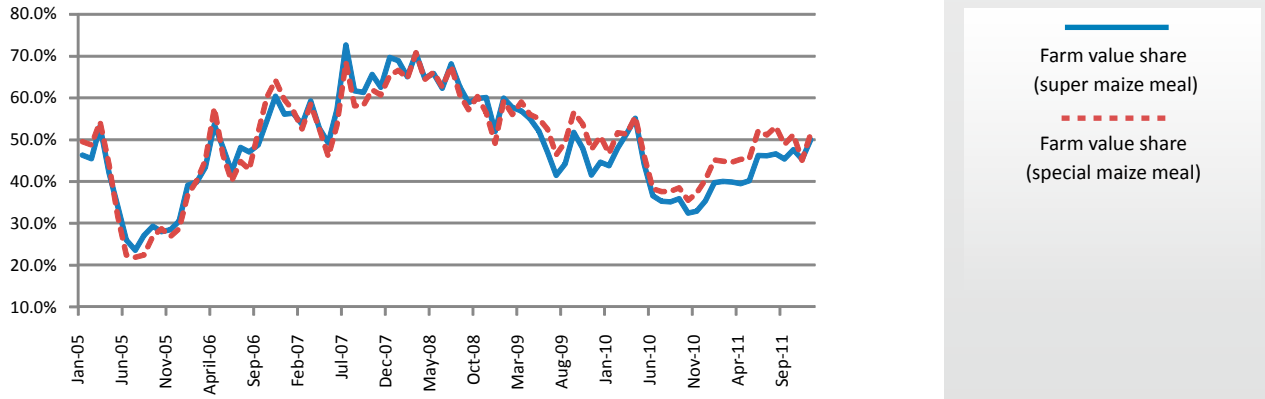


FIGURE 60: REAL RETAIL VALUE AND FARM VALUE OF SUPER MAIZE MEAL

Source: SAFEX, Stats SA and own calculations, 2011

Figure 61 shows the trends in the farm value shares for super maize meal and special maize meal. The two farm value shares increased between mid-2005 and mid-2007. Between 2010 and 2011, the average farm value share of super maize meal increased from 35.96% to 51.8% and that of special maize meal increased from 37.38% to 50.29%.



61: REAL FARM VALUE SHARE OF SPECIAL AND SUPER MAIZE MEAL

Source: SAFEX, Stats SA and own calculations, 2011

Figure 62 shows the FTRPS for super maize meal and special maize meal between January 2005 and December 2011. The two spreads showed high variability, reaching R1 934 per ton in November 2011 for special maize meal and R2 371 per ton in November 2011 for super maize meal. From December 2010 to December 2011, the real FTRPS

for super maize meal increased from R2 244 per ton to R2 308 per ton (or 2.85%) and the real FTRPS for special maize meal increased from R1 482 per ton to R1 755 per ton (or 18.42%%).

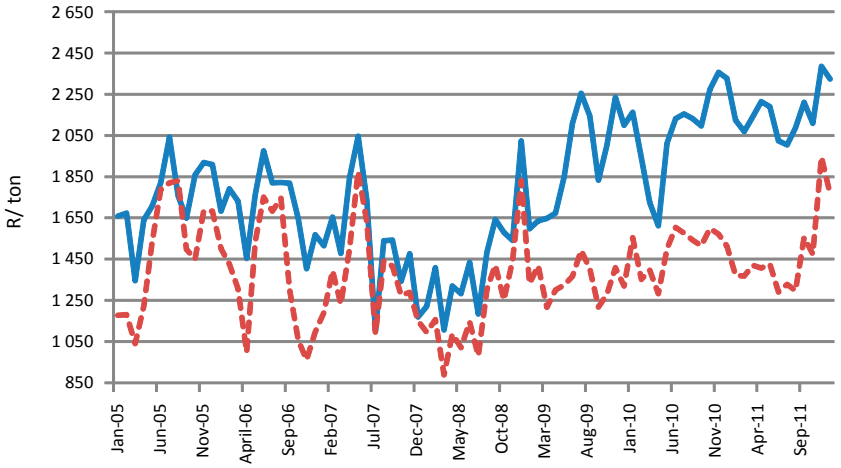


FIGURE 62: REAL FARM TO RETAIL PRICE SPREAD OF SPECIAL AND SUPER MAIZE MEAL

Source: SAFEX, Stats SA and own calculations, 2011

5.4.7 MAIZE TO MAIZE MEAL VALUE CHAIN

This section discusses the maize-to-maize meal value chain. The methodology used is similar to the methodology used in the Food Cost Review: 2010. Changes have been made in the calculation of the average location differential. The previous figure only represented an average. The current figure for 2010 and 2011 represents a weighted average between the different provinces. A comparison between 2010 and 2011 is also included in the analysis.

A weighted price ratio between a 5 kg bag and a 12.5 kg bag of maize meal was used, as well as a detailed cost breakdown to calculate the farm gate price (see Appendix B for details of how the different items were calculated). The value chain from the manufacturing phase onwards was split into two scenarios, i.e., a low-cost scenario (Scenario 1) and a high-cost scenario (Scenario 2). This reflects different economics of scale and efficiencies.

Table 30 (Component A) represents the value chain for maize to super maize meal for 2010 and 2011. The farm gate price for maize was R264 per ton (or 26.64%) higher than the previous season, while the mill door price for maize was R116 per ton (or 12%) higher than the previous season. The gap between the farm gate price and the SAFEX spot price was R158 for 2011 and R143 for 2010.

This indicates an increase in the cost of sales for the maize producer. The cost for the miller to deliver maize at the mill door increased, on average, by 12.22%, while the income received from the sale of chop increased by R169.

Table 30: Average costs in the maize to maize meal (super maize meal) value chain (Component A)

No	Item	Units	2010	2011
1.	Farm gate price lagged four months	R/ton grain	R991.08	R1 255.12
2.	Transport costs: farm gate to silo	R/ton grain	R43.76	R45.36
3.	Average handling, grading, procurement fee and 1% physical loss fee	R/ton grain	R69.48	R83.42
4.	Average storage cost for the farmer	R/ton grain	R30.01	R29.42
5.	SAFEX-derived price for the producer at the silo	R/ton grain	R1 134.33	R1 413.31
6.	Average location differential	R/ton grain	R141.13	R145.60
7.	Average SAFEX spot price for white maize (2010) four months lagged	R/ton grain	R1 275.46	R1 558.91
8.	Storage and handling costs: cost to miller	R/ton grain	R61.40	R58.74
9.	Transport costs: silo to mill door	R/ton grain	R112.01	R116.48
	Average commission paid by miller	R/ton grain	R25.00	R30.00
10.	Income from sale of chop	R/ton grain	R380.69	R550.13
11.	Mill door price for maize	R/ton grain	R952.05	R1 068.41

Sources: Discussions with different industry stakeholders at various levels of the maize value chain.
Average annual chop price; South Africa Feedlot Association; SAFEX, 2012

Table 31 (Component B) shows costs from the mill door to the retail level. On average, milling costs increased by 15.04%, packaging cost by 37.14%, packing material by 12.12%, and administration, warehouses and selling by 8.59%. The total mill site costs increased by 10.49% between 2010 and 2011. Total mill site costs including distribution costs increased, on average, by 1.24%. Total manufacturing and distribution costs including capital expenditure increased by 10.51%. The cost of producing maize meal (measured as rand per ton of meal) has increased, on average, by 11.35% since 2010. If compared with the low-cost and high-cost scenarios, the miller-to-retail margin increased by 36.04% (from R861.95 to R1 172.64) in the high-cost scenario and by 11.3% (from R705 to R999) in the low-cost scenario.

Table 31: The maize to maize meal (super maize meal) value chain (Component B)

No	Item	Units	2010		2011	
11.	Mill door price for maize	R/ton grain	R952.05		R1 068.41	
	Manufacturers		Scenario 1	Scenario 2	Scenario 1	Scenario 2
	Production cost (milling costs)	R/ton grain	R104.50	R115.50	R118.75	R131.25
	Packing cost	R/ton grain	R33.25	R36.75	R45.60	R50.40
	Packing material costs and losses	R/ton grain	R125.40	R138.60	R140.60	R155.40
	Administration, warehouses and selling	R/ton grain	R204.25	R225.75	R232.75	R257.25
12.	Mill site cost	R/ton grain	R467.40	R516.60	R537.70	R594.30
	Distribution costs	R/ton grain	R229.90	R254.10	R232.75	R257.25
13.	Total mill site cost	R/ton grain	R697.30	R770.70	R770.45	R851.55
14.	Fixed capital cost	R/ton grain	R161.50	R178.50	R176.70	R195.30
15.	Floating capital costs	R/ton grain	R72.20	R79.80	R81.70	R90.30
16.	Total manufacturing and distribution cost	R/ton grain	R931.00	R1 029.00	R1 028.85	R1 137.15
	Cost of production of super maize meal					
17.	Conversion cost (maize to maize meal)	R/ton grain	R931.00	R1 029.00	R1 028.85	R1 137.15
18.	Average cost of maize (mill door price)	R/ton grain	R952.05	R952.05	R1 068.41	R1 068.41
19.	Total super maize meal cost	R/ton grain	R1 883.05	R1 981.05	R2 097.26	R2 205.56
20	Average extraction rate for super maize meal		0.63	0.63	0.63	0.63
21	Average cost of super maize meal	R/ton meal	R3 012.88	R3 169.68	R3 355.61	R3 528.89
22’	Miller to retail margin	R/ton meal	R861.95	R705.15	R1 172.64	R999.36
23	Average monthly retail price	R/ton meal	R3 874.83	R3 874.83	R4 528.25	R4 528.25

Note: The average retail price is based on a weighted price of 30% for 5 kg and 70% for 12.5 kg bags of maize meal.
Sources: Discussions with different industry stakeholders at various levels of the maize value chain. Average annual chop price; South Africa Feedlot Association; SAFEX, 2012

5.5 Wheat sector

5.5.1 Production and imports

South Africa produced 1.40 million tons of wheat in the 2010/11 season from 558 000 hectares. The average for the last 10 years was 1.99 million tons. The previous low level was 1.27 million tons in the 1992/93 season (SAGIS, 2012).

South Africa showed an increasing trend in the importation of wheat for the period depicted in Figure 63. South Africa imported more wheat than it produced. This is the second time that this has happened since 1938. South Africa imported 1.08 million tons, on average, over the last 10 years and needed to import 1.65 million tons in the 2010/11 season.

South Africa exported 205 000 and 179 000 tons to neighboring countries in 2009/11 and 2010/11 marketing seasons.(SAGIS, 2012).

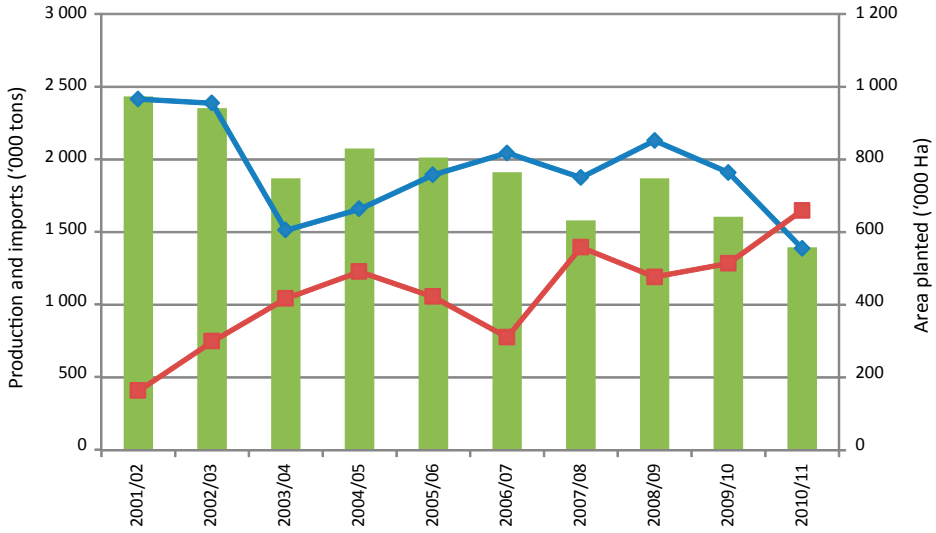


FIGURE 63: AREA PLANTED, COMMERCIAL PRODUCTION AND IMPORTS (TONS)

Source: SAGIS, 2011

5.5.2 CONSUMPTION

South Africans consumed 2.97 million tons of wheat in the 2010/11 season. Less than 1% of the wheat consumed in South Africa is destined for the feed market. The rest is produced for human consumption. Figure 64 illustrates the domestic wheat consumption and production for the last 10 years. The per capita consumption for wheat increased from 55.42 kg to 58.32 kg between the 2001/02 and the 2010/11 seasons. OCOST REVIEW 2010

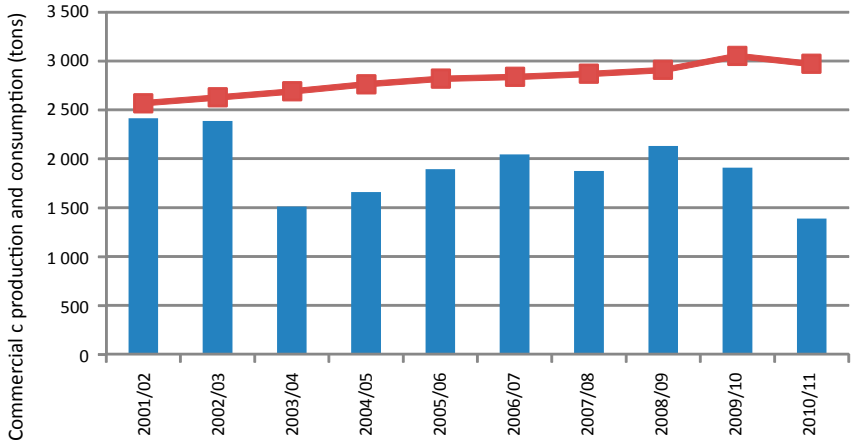


FIGURE 64: WHEAT CONSUMPTION AND PRODUCTION

Source: SAGIS, 2011

5.5.3 Price trends for wheat

South Africa is a net importer of wheat, hence the local wheat price tends to trade at import parity prices (see Figure 65). This entails, among others, changes in the exchange rate and the world price for wheat being reflected almost immediately in the local wheat price.

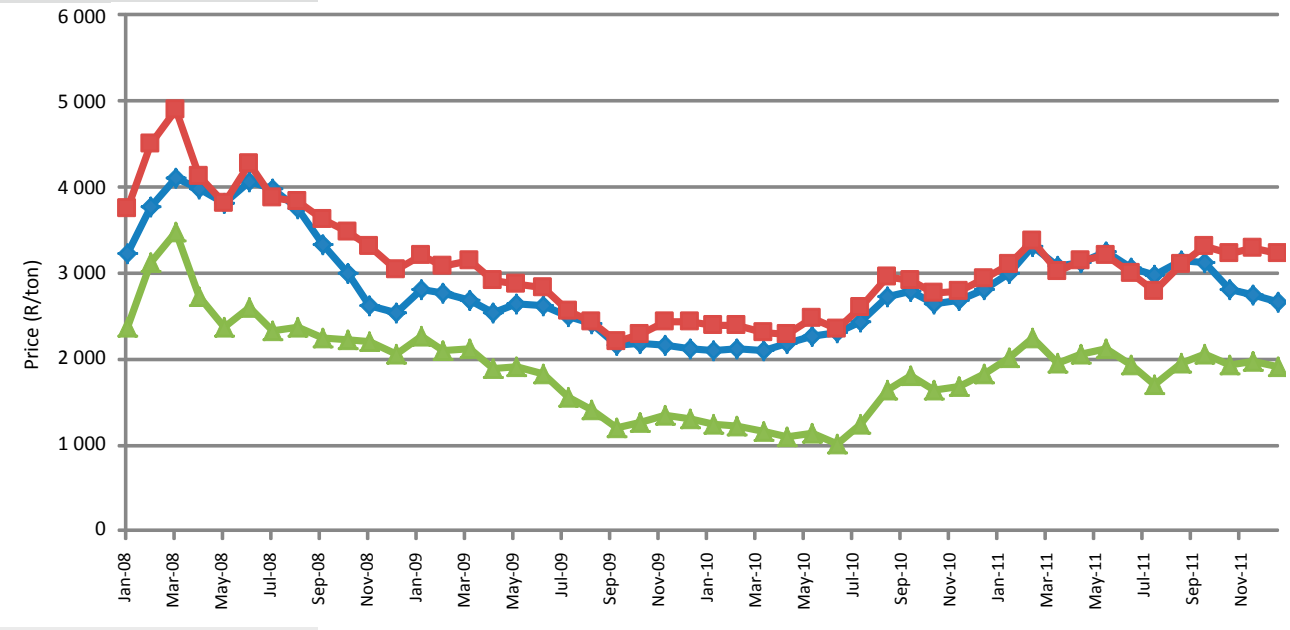


Figure 65: Import parity, export parity and SAFEX wheat price

Source: SAGIS, 2011; SAFEX, 2011

5.5.4 Real farm gate and retail prices of brown and white bread

Figure 66 shows that the farm gate price of wheat per ton lagged with four months compared to the retail price of brown and white bread. The average farm gate price of wheat (lagged by four months) increased by 41% from R1 802 per ton in 2010 to R2 542 per ton in 2011. The average real retail price for white bread increased by 9.2% between 2010 and 2011 from R7.99 to R8.72 per loaf. Brown bread increased by 10.1% from R7.08/loaf in 2010 to R7.80/loaf in 2011

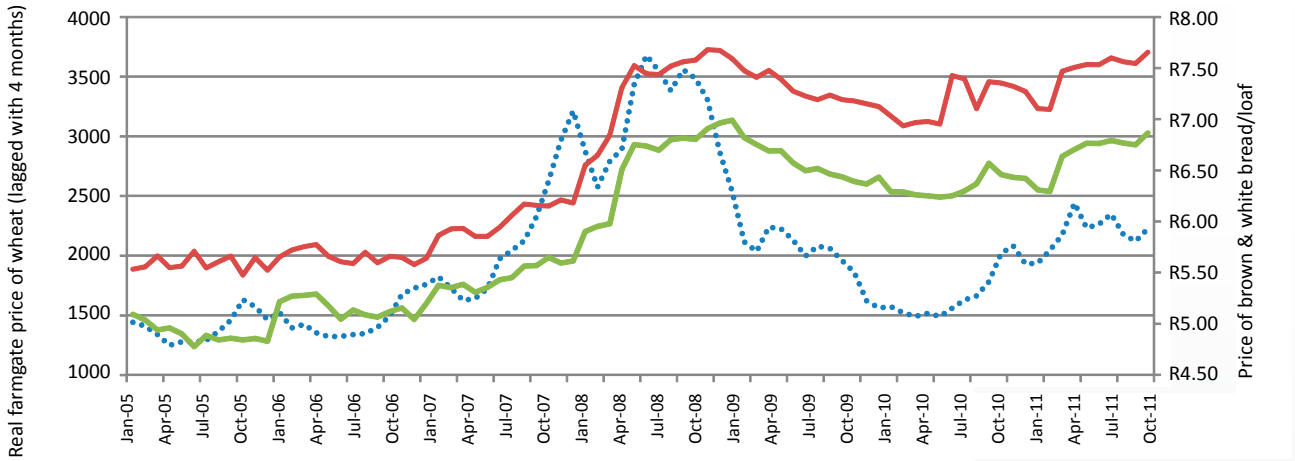


FIGURE 66: FARM GATE PRICE OF WHEAT AND REAL RETAIL PRICE OF BROWN AND WHITE BREAD

Source: SAFEX, 2011; Stats SA, 2011 and own calculations

Figure 67 shows the percentage difference in prices between white and brown bread. On average, during 2011, white bread was 10.59% more expensive than brown bread. Brown bread is zero-rated for value added tax (VAT), while 14% VAT is charged on white bread. If white bread was also zero-rated, its average price would be R7.65 as opposed to brown bread's price of R7.80.

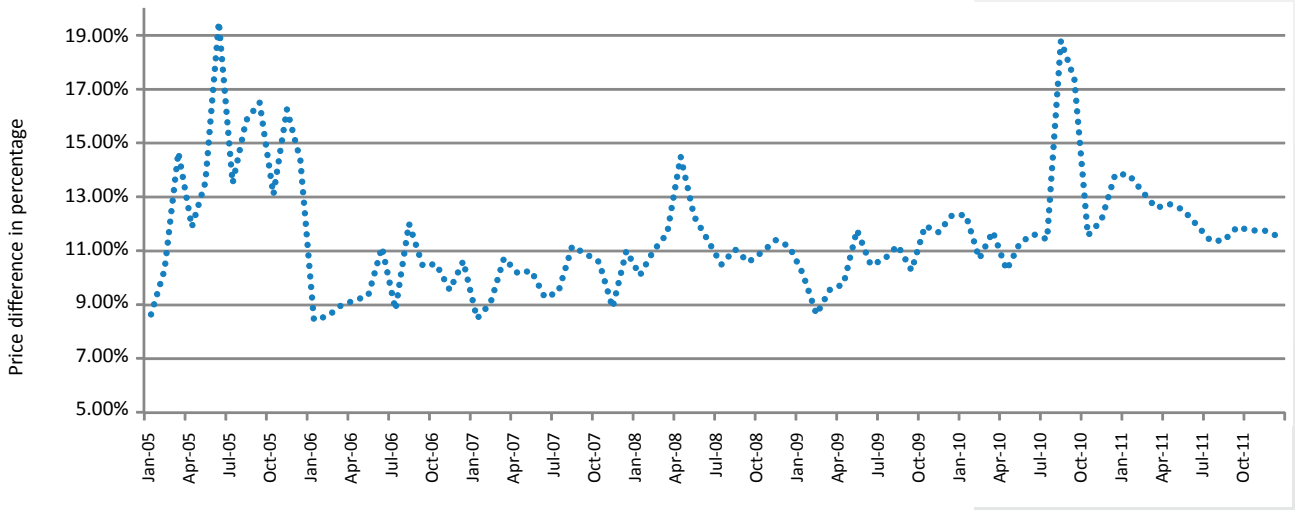


FIGURE 67: PRICE DIFFERENCE BETWEEN WHITE AND BROWN BREAD

Source: Stats SA, 2011 and own calculations

5.5.5 REAL FARM VALUE SHARE OF BROWN AND WHITE BREAD

Figure 68 shows that the real farm value share for both brown and white bread was between 15% and 20% for 2011. The average for brown bread was 17.72% and for white bread 17.97%. These percentages are significantly lower than those of the latter half of 2007 and 2008.

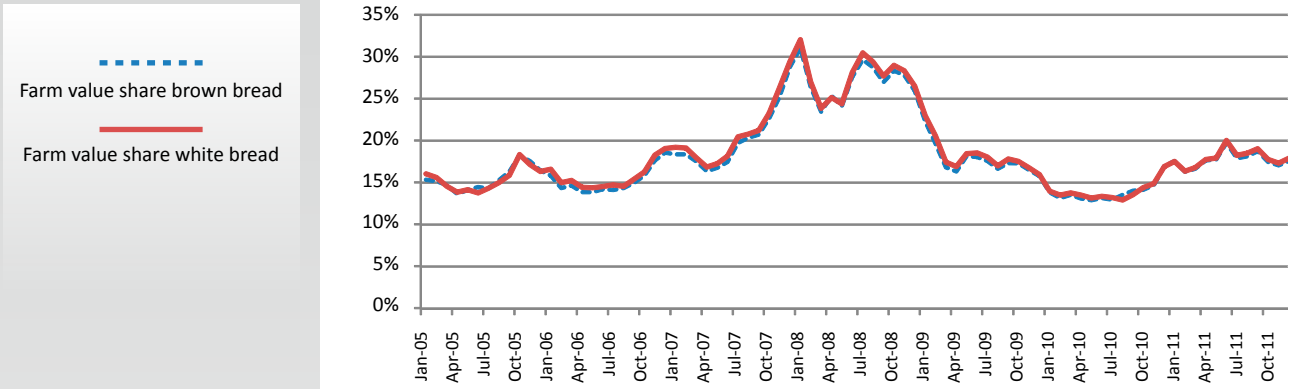


FIGURE 68: REAL FARM VALUE SHARE OF BROWN AND WHITE BREAD

Source: SAFEX, 2011; Stats SA, 2011 and own calculations

Note: In order to calculate the real farm value and real retail value of a ton of flour used for a 700 g loaf of white bread, the following assumptions were made: the extraction rate from 1 ton of wheat is 0.76 tons of white bread flour; and 1 ton of white bread flour can produce 2 275 loaves of white bread (700 g).

5.5.6 FARM-TO-RETAIL PRICE SPREAD (FTRPS)

Figure 69 shows the real FTRPS for brown and white bread. On average, the FTRPS for brown bread was R12 764.58 per ton of flour in 2010. This is lower from the 2011 average of R13 375 per ton of flour. In the case of white bread, the average FTRPS was R15 104 per ton of flour in 2010, which is also slightly lower than the average of R13 790 per ton of flour for 2011. Cognisance should be taken that since 2008 the FTRPS is significantly higher than it was in the preceding period depicted in Figure 69.

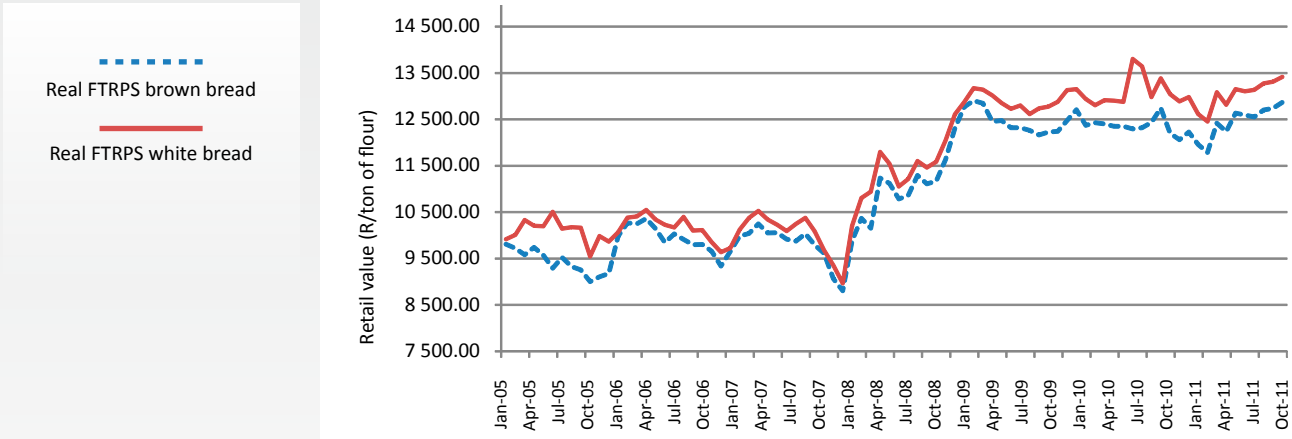


FIGURE 69: REAL FARM TO RETAIL PRICE SPREAD OF BROWN AND WHITE BREAD

Source: SAFEX, 2011; Stats SA, 2011 and own calculations

Note: The real farm-to-retail price spread is calculated by deducting the real farm value for a ton of flour from the real retail value of a ton of flour. The price spread represents all the costs involved in the value adding process.

5.5.7 WHEAT TO WHITE BREAD CHAIN

Table 32 and Table 33 show the costs and margins in the wheat to white and wheat to brown bread value chains respectively, from farm gate to retailer. It also provides a comparison of margins and costs between the 2010 season and the 2011 season. The

calculation from the manufacturing phase onwards was split into different scenarios, i.e., a low-cost and a high-cost scenario, combined with different quantities flour used to bake a loaf of bread.

Scenario 1 and Scenario 3 represent typical high-cost scenarios, but in Scenario 1 more flour is required to bake bread than in Scenario 3. Scenario 2 and Scenario 4 represent typical low-cost scenarios, but in Scenario 2 more flour is required to bake a loaf of bread compared to Scenario 4.

The high-cost and low-cost scenarios reflect the impact of different economics of scale, while the amount of flour used reflects different efficiencies in converting wheat into bread. Table 32 shows the different cost and value-adding activities in the wheat to white bread value chain. In order to make the discussion more manageable, the following table is divided into three different components. Each component is then discussed separately. Table 32 (Component A) shows that the producer price (farm gate price) for wheat was R739.77 per ton (or 29%) lower in 2010 than in 2011, while the average wheat spot price was R749.29 per ton (or 34%) lower in 2010.

Table 32: Average costs in the wheat-to-white bread supply chain (Component A)

No.	Item	Units	2010	2011
1.	Wheat average producer price lagged 4 months	R/ton grain	1 802.22	2 541.99
2.	Transport cost: farm gate to silo	R/ton grain	43.76	45.36
3.	Average handling, grading, procurement fee and 1% physical loss fee.	R/ton grain	84.64	92.09
4.	Average storage cost for the farmer	R/ton grain	33.34	33.82
5.	SAFEX-derived price for the producer at the silo	R/ton grain	1 963.96	2 713.25
6.	Average location differential	R/ton grain	255.38	268.99
7.	Average SAFEX spot price for wheat. Lagged with 4 months	R/ton grain	2 219.33	2 982.25
8.	Storage and handling costs: cost to miller	R/ton grain	63.33	63.33
9.	Transport costs: silo to mill door	R/ton grain	204.30	215.20
10.	Income from sale of bran	R/ton grain	291.01	384.86
11.	Mill door price	R/ton grain	1 940.58	2 606.92

Sources: Discussions with different industry stakeholders at various levels of the maize value chain. Average annual chop price; South Africa Feedlot Association; SAFEX, 2012

Component B of Table 33 shows that mill site costs have increased. The increase in the total mill site costs range between 8% and 10% for the low-cost and high-cost scenarios respectively between 2010 and 2011. The main cost items that contributed to the increase in the total mill site costs were milling, packaging and distribution costs. The total cost of white bread flour was higher for the different scenarios in 2011 due to a higher mill door price. Component A of Table 33 indicates that the mill door price for wheat was R666 per ton (or 34.33%) higher in 2011 than it was in 2010. The main contributor to the higher mill door price was the higher wheat price.

Table 33: Average costs in the wheat-to-white bread supply chain (Component B)

No.	Item	Unit	2010		2011	
11.	Mill door price	R/ton grain	1 940.58		2 606.92	
	Manufacturing cost	R/ton grain	Scenario 1 and Scenario 3	Scenario 2 and Scenario 4	Scenario 1 and Scenario 3	Scenario 2 and Scenario 4
	Production cost (milling costs)	R/ton grain	177.44	160.95	175.43	193.90
	Packing cost and losses	R/ton grain	34.57	31.35	34.17	37.77
	Administration, warehouse and selling	R/ton grain	241.97	219.47	239.22	264.41
12.	Mill site costs	R/ton grain	453.98	411.77	448.83	496.08
	Distribution costs	R/ton grain	244.27	221.56	241.50	266.92
13.	Total mill site costs	R/ton grain	698.25	633.33	690.33	763.00
14.	Fixed capital costs	R/ton grain	250.96	227.62	248.11	274.23
15.	Floating capital costs	R/ton grain	104.85	95.10	103.66	114.58
16.	Total millers costs	R/ton grain	1 054.06	956.06	1 042.11	1 151.80
17.	Total wheat flour cost for white bread (11 + 16)		2 994.64	2 896.64	3 649.03	3 758.72
17.	Conversion cost	R/ton grain	1 054.06	956.06	1 042.11	1 151.80
18.	Average cost of wheat (mill door price)	R/ton grain	1 940.58	1 940.58	2 606.92	2 606.92
19.	Total wheat flour cost for white bread	R/ton grain	2 994.64	2 896.64	3 649.03	3 758.72
18.	Average extraction for white bread		0.80	0.80	0.80	0.80
19.	Total cost of white bread flour (17 ÷ 18)	R/ton meal	R3 743.30	R3 620.80	R4 561.28	R4 698.40

Sources: Discussions with different industry stakeholders at various levels of the maize value chain. Average annual chop price; South Africa Feedlot Association; SAFEX, 2012

Component C of Table 34 shows that the cost of flour to bake one white bread (line 21) increased from 2010 to 2011. Packaging cost ranged between R0.29 and R0.32 in 2011, which was a slight increase compared to 2010. Distribution and overhead costs decreased, on average, with 23% from 2010 to 2011. Overall, the cost of producing a loaf of white bread has increased, on average, by 5% and 8% (cost of flour included) from 2010. The price of a loaf of white bread increased by 9% during the period applicable to this analysis. The margin between the selling price of a loaf of white bread and the cost of producing it has decreased, on average, by 11%. This margin is made up of VAT (R1.07 per loaf), a retailer margin of 15% (R1.00 per loaf), costs associated with rebates, losses and returns (R0.66 per loaf), and a baker and miller margin that varies according to the cost structure of the baking facility and its efficiency (R0.14 to R0.82 per loaf).

Table 34: Average cost in the wheat-to-white bread value chain (Component C)

No.	Item	Unit	Scenario 1 (508 g – high)	Scenario 2 (508 g – low)	Scenario 3 (420 g – high)	Scenario 4 (420 g – low)	Scenario 1 (508 g – high)	Scenario 2 (508 g – low)	Scenario 3 (420 g – high)	Scenario 4 (420 g – low)
19.	Average cost of white bread flour	R/ton meal	3 744.17	3 621.67	3 744.17	3 621.67	4 563.65	4 700.77	4 563.65	4 700.77
20.	Extraction rate of white bread from 1 ton of flour (508 g and 420 g loafs per ton of flour)	Loaves per ton	1 966	1 966	2 381	2 381	1 966	1 966	2 381	2 381
21.	Cost of flour per loaf	R/loaf	1.90	1.84	1.57	1.52	2.32	2.39	1.92	1.97
22.	Packaging	R/loaf	0.27	0.25	0.27	0.25	0.32	0.29	0.32	0.29
23.	Other raw materials	R/loaf	0.48	0.44	0.48	0.44	0.48	0.44	0.48	0.44
24.	Production and maintenance	R/loaf	1.05	0.95	1.05	0.95	1.21	1.10	1.21	1.10
25.	Distribution	R/loaf	1.05	0.95	1.05	0.95	0.81	0.73	0.81	0.73
26.	Overheads (administration and sales)	R/loaf	0.71	0.65	0.71	0.65	0.71	0.65	0.71	0.65
27.	Cost of producing white bread	R/loaf	5.47	5.08	5.14	4.76	5.85	5.59	5.44	5.17
28.	Baker's and miller's margin	R/loaf	0.01	0.41	0.35	0.73	0.14	0.40	0.55	0.82
29.	Wholesale price	R/loaf	5.49	5.49	5.49	5.49	5.99	5.99	5.99	5.99
30.	Rebates, losses and returns	R/loaf	0.60	0.60	0.60	0.60	0.66	0.66	0.66	0.66
31.	Retailers purchase price	R/loaf	6.09	6.09	6.09	6.09	6.65	6.65	6.65	6.65
32.	Retailer's margin	R/loaf	0.91	0.91	0.91	0.91	1.00	1.00	1.00	1.00
33.	White bread retail price (VAT excluded)	R/loaf	7.01	7.01	7.01	7.01	7.65	7.65	7.65	7.65
34.	VAT (14%)	R/loaf	0.98	0.98	0.98	0.98	1.07	1.07	1.07	1.07
35.	White bread retail price (VAT included)	R/loaf	7.99	7.99	7.99	7.99	8.72	8.72	8.72	8.72
36.	Margin between the selling price and the cost of producing a loaf of white bread (35 – 27)	R/loaf	2.51	2.91	2.84	3.23	2.87	3.13	3.28	3.55

Sources: Discussions with different industry stakeholders at various levels of the maize value chain. Average annual chop price; South Africa Feedlot Association; SAFEX, 2012

5.5.8 Wheat-to-brown bread chain

Table 35 shows the different cost and value adding activities in the wheat to brown bread value chain. The calculation of the mill door price for brown bread is similar to that of white bread, with the exception that the income received from bran differs due to different extraction rates to produce brown bread flour. Table 35 (Component A) shows that the mill door price for wheat when used to produce brown bread increased from R2 043.13 per ton in 2010 to R2 743.52 per ton in 2011, an increase of 34%.

Table 35: Average costs in the wheat-to-brown bread supply chain (Component A)

No.	Item	Units	2010	2011
1.	Wheat average producer price lagged 4 months	R/ton grain	1 802.22	2 541.99
2.	Transport cost: farm gate to silo	R/ton grain	43.76	45.36
3.	Average handling, grading, procurement fee and 1% physical loss fee.	R/ton grain	84.64	92.09
4.	Average storage cost for the farmer (2 months)	R/ton grain	33.34	33.82
5.	SAFEX-derived price for the producer at the silo	R/ton grain	1 963.96	2 713.25
6.	Average location differential	R/ton grain	255.38	268.99
7.	Average SAFEX spot price for wheat (2009). Lagged with 4 months	R/ton grain	2 219.33	2 982.25
8.	Storage and handling costs: cost to miller	R/ton grain	64.03	65.23
9.	Transport costs: silo to mill door	R/ton grain	204.30	215.20
10.	Income from sale of bran	R/ton grain	189.16	250.16
11.	Mill door price	R/ton grain	2 043.13	2 743.52

Sources: Discussions with different industry stakeholders at various levels of the maize value chain. Average annual chop price; South Africa Feedlot Association; SAFEX, 2012

Table 36 (Component B) shows that the total mill site costs increased, on average, by 10% from 2010 to 2011. The main cost items that contributed to the increase in the total mill site costs were milling, packaging and distribution costs. The total miller's costs, including capital expenditure, increased by 9.7%. The total cost to produce a loaf of brown bread (measured in rand per ton of meal) decreased by 9.6% between 2010 to 2011.

Table 36: Average costs in the wheat-to-brown bread supply chain (Component B)

			2010		2011	
11.	Mill door price	R/ton grain	R2 043.13		R2 743.52	
	Manufacturing cost		Scenario 1	Scenario 2	Scenario 1	Scenario 2
	Production cost (milling costs)	R/ton grain	177.44	160.95	193.41	175.43
	Packing cost and losses	R/ton grain	34.57	31.35	37.68	34.17
	Administration, warehouse and selling	R/ton grain	241.97	219.47	263.74	239.22
12.	Mill site costs	R/ton grain	453.98	411.77	494.84	448.83
	Distribution costs	R/ton grain	244.27	221.56	266.26	241.50
13.	Total mill site costs	R/ton grain	698.25	633.33	761.09	690.33
14.	Fixed capital costs	R/ton grain	250.96	227.62	273.54	248.11
15.	Floating capital costs	R/ton grain	104.85	95.10	114.29	103.66
16.	Total miller's costs	R/ton grain	1 054.06	956.06	1 148.92	1 042.11
17.	Total wheat flour cost for brown bread (11 + 16)	R/ton grain	3 097.19	2 999.19	3 892.44	3 785.62
18.	Average extraction for brown bread		0.87	0.87	0.87	0.87
19.	Total cost of brown bread flour	R/ton meal	3 559.99	3 447.35	4 474.07	4351.29

Sources: Discussions with different industry stakeholders at various levels of the maize value chain. Average annual chop price; South Africa Feedlot Association; SAFEX, 2012

Table 37 (Component C) shows that the cost of brown bread flour to bake one loaf of brown bread increased between 9.68% and 10.19% from 2010 to 2011, depending on whether a high-cost or a low-cost scenario is applicable and according to the level of efficiency of the baking plant. Packaging increased, on average, by 13%, while production and maintenance costs increased, on average, by 14% from 2010 to 2011. Distribution and overhead costs increased, on average, by 10.53% and 10.47% respectively from 2010 to 2011. Overall, the cost of producing a loaf of brown bread increased, on average, by 4.12% from 2010 to 2011.

The price of a loaf of brown bread has decreased by 10.2%. The margin between the selling price of a loaf of brown bread and the cost of producing it has decreased with 7%. This margin is made of a retailer margin of 15% (R1.02 per loaf), costs associated with rebates, losses and returns (R0.67 per loaf), and a baker's and miller's margin that varies according to the cost structure of the baking facility and its efficiency (R0.4 to R1.11 per loaf).

The different extraction rates were calculated as 508 g of flour per loaf for Scenario 1 and Scenario 2 and 420 g of flour per loaf for Scenario 3 and Scenario 4. An extraction rate of 468 g of flour per loaf of flour was used in the 2003 Food Price Monitoring Committee Report.

Table 37: Average cost in the wheat-to-brown bread value chain (Component C)

No	Item	Unit	2010			2011				
			Scenario 1 (480 g – high)	Scenario 2 (480 g – low)	Scenario 3 (405 g – high)	Scenario 4 (405 g – low)	Scenario 1 (480 g – high)	Scenario 2 (480 g – low)	Scenario 3 (405 g – high)	Scenario 4 (405 g – low)
21.	Average cost of brown bread flour	R/ton meal	3 560	3 447	3 560	3 447	4 474	4 351	4 474	4 351
22.	Extraction rate of brown bread from 1 ton flour (480 g and 405 g loafs/ ton flour)	Loaves per ton	2 095	2 095	2 469	2 469	2 095	2 095	2 469	2 469
23.	Cost of flour per loaf	R/loaf	1.70	1.65	1.44	1.40	2.14	2.08	1.81	1.76
24.	Packaging	R/loaf	0.27	0.25	0.27	0.25	0.27	0.25	0.27	0.25
25.	Other raw materials	R/loaf	0.48	0.44	0.48	0.44	0.48	0.44	0.48	0.44
26.	Production labour	R/loaf	1.05	0.95	1.05	0.95	1.05	0.95	1.05	0.95
27.	Distribution	R/loaf	1.05	0.95	1.05	0.95	1.05	0.95	1.05	0.95
28.	Overheads	R/loaf	0.71	0.65	0.71	0.65	0.71	0.65	0.71	0.65
29.	Cost of producing brown bread	R/loaf	5.27	4.88	5.01	4.63	5.71	5.32	5.38	5.00
30.	Baker's and miller's margin	R/loaf	0.28	0.66	0.54	0.91	0.40	0.79	0.73	1.11
31.	Wholesale price	R/loaf	5.55	5.55	5.55	5.55	6.11	6.11	6.11	6.11
32.	Rebates, losses and returns	R/loaf	0.61	0.61	0.61	0.61	0.67	0.67	0.67	0.67
33.	Retailer's purchase price	R/loaf	6.16	6.16	6.16	6.16	6.78	6.78	6.78	6.78
34.	Retailers margin	R/loaf	0.92	0.92	0.92	0.92	1.02	1.02	1.02	1.02
35.	Brown bread retail price (VAT excluded)	R/loaf	7.08	7.08	7.08	7.08	7.80	7.80	7.80	7.80
37.	VAT (14%)	R/loaf	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.	Brown bread retail price (VAT included)	R/loaf	7.08	7.08	7.08	7.08	7.80	7.80	7.80	7.80
39	Brown bread margin from miller to retailer	R/loaf	1.81	2.20	2.07	2.45	2.09	2.48	2.41	2.80

Sources: Discussions with different industry stakeholders at various levels of the maize value chain. Average annual chop price; South Africa Feedlot Association; SAFEX, 2012

5.6 Sunflower seed

Sunflower seed is mainly used for the crushing of oil. The meal is normally used in the feed industry. The husk is used as bedding in the broiler industry or as an energy source at processing plants. The cultivation of sunflowers mostly occurs in North West and the Free State. Sunflower seed constitutes about 5% of the total grains cultivated in South Africa

5.6.1 Production and consumption of sunflower seed

Figure 70 illustrates the area planted, the production and consumption of sunflower seed. The area planted varies between 400 000 and 670 000 hectares. The decision for a farmer to plant sunflowers depends on the price of substitute product such as maize, as well as climatic conditions at that specific time. Sunflower is well conditioned for South African weather conditions. Sunflower can be produced economically in South Africa, even if planting conditions are not good enough for other crops. The average yield differs from 0.94 to 1.54 tons per hectare over the last 10 years. The consummation also varies from year to year as illustrated in Figure 70. Consumption also indicates volatile trends over the past 10 years and decreased with 6.6% from December 2010 (775 000 tons) to December 2011 (690 000 tons).

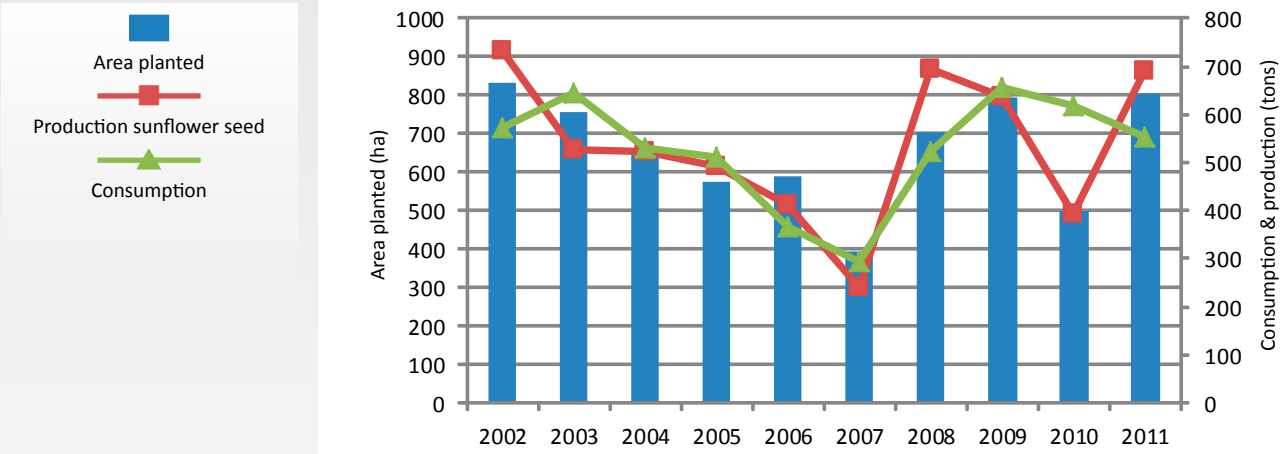


Figure 70: Area planted; production and consumption of sunflowers seed in South Africa

Source: SAGIS, 2012; own calculations, 2012

5.6.2 Price trends for sunflower seeds

The domestic sunflower price, as illustrated in Figure 71, decreased with 13.7% from December 2010 (R4 919 per ton) to December 2011 (R4 246 per ton). The international price of sunflower seed moved sideways in the same period. The retail price of sunflower oil (750 ml) increased by 14.9% from December 2010 (R14.49 per 750 ml) to December 2011 (R16.65 per 750 ml).

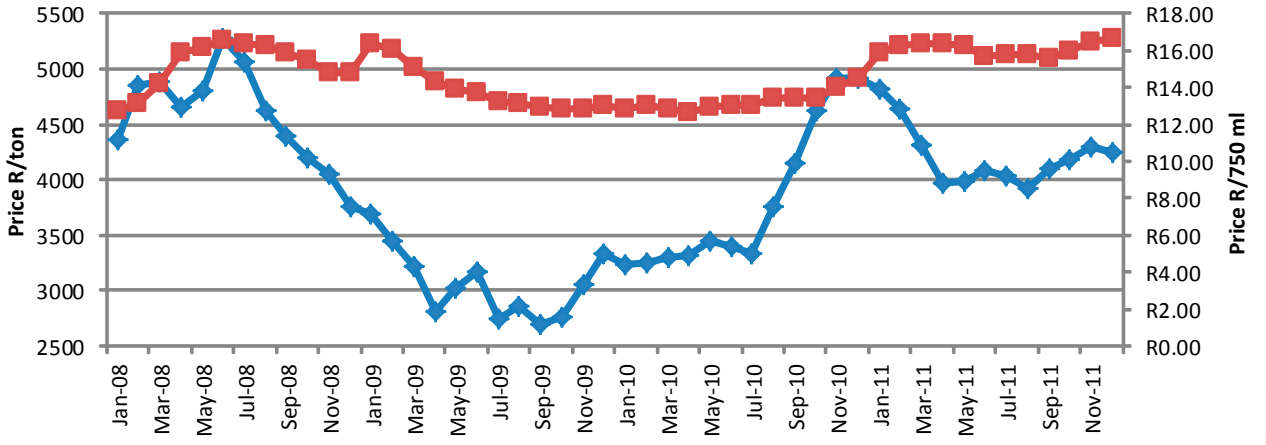


FIGURE 71: DOMESTIC SUNFLOWER SEED PRICE AND RETAIL PRICE OF SUNFLOWER (750 ML)

Source: SAGIS and Stats SA, 2012

5.7 SOYBEANS

Soybeans are cultivated mostly in KwaZulu-Natal and Mpumalanga under dry land and irrigation conditions. Increased plantings occurred in the eastern parts of the Free State. Some farmers in North West and the northern parts of the Free State recently started planting soybeans with success. Soybeans constitute about 3% of the total grains produced in South Africa.

5.7.1 SOYBEAN PRODUCTION

South Africa's produced 685 000 tons of soybeans in 2011, as illustrated in Figure 72. The production of soybeans was 28.12% higher than in 2010. The area planted increased by 34.21% between 2010 (311 500 ha) and 2011 (418 000 ha). Supply expanded due to increased local demand and increased adoption by farmers as part of their production practises (crop rotation)The supply tended to increase due to higher demand and also due to a better understanding of soybean and maize crop rotation programmes. Research and development is limited and very few new cultivars have been released in South Africa over the past five years. The protein research Institutions promoted and funded the development and testing of foreign cultivars in South Africa.

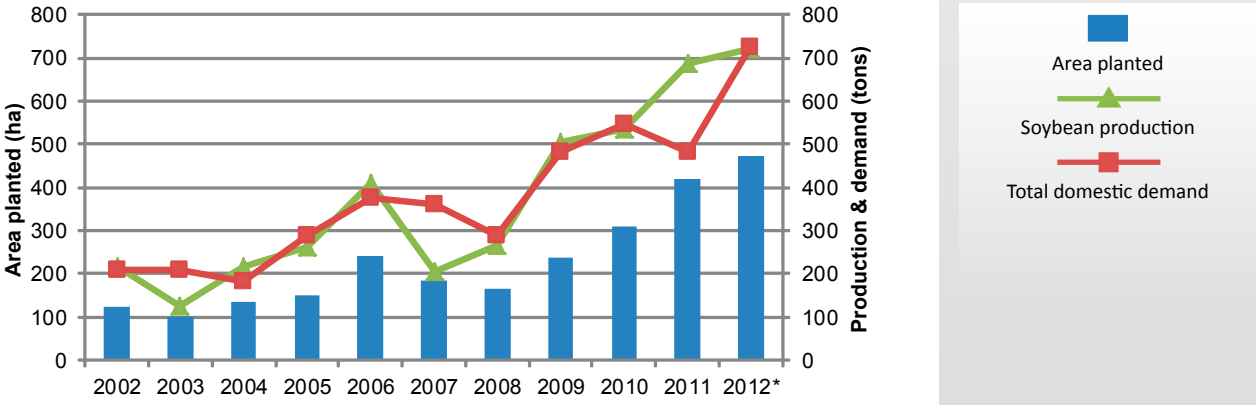


FIGURE 72: AREA PLANTED, PRODUCTION AND DEMAND OF SOYBEAN SEED IN SOUTH AFRICA

Source: SAGIS and own calculations, 2012 *Estimate

5.7.2 Soybean consumption

South Africa consumed about 439 000 tons of soybeans in 2011, of which 154 000 tons were processed as full fat soybean meal. This is a decrease of 24.5% from the previous year. The highest quantity of beans processed for full fat soybean meal was 241 000 tons in the 2006 season. South Africa showed an increased demand for soybeans for crushing for the oil and oil-cake market. The demand for soybeans for human consumption was 33 000 tons in 2011. Soybean consumption is on the increase in South Africa, as illustrated in Figure 73. This can mainly be explained by the higher demand in the processing and feed industry.

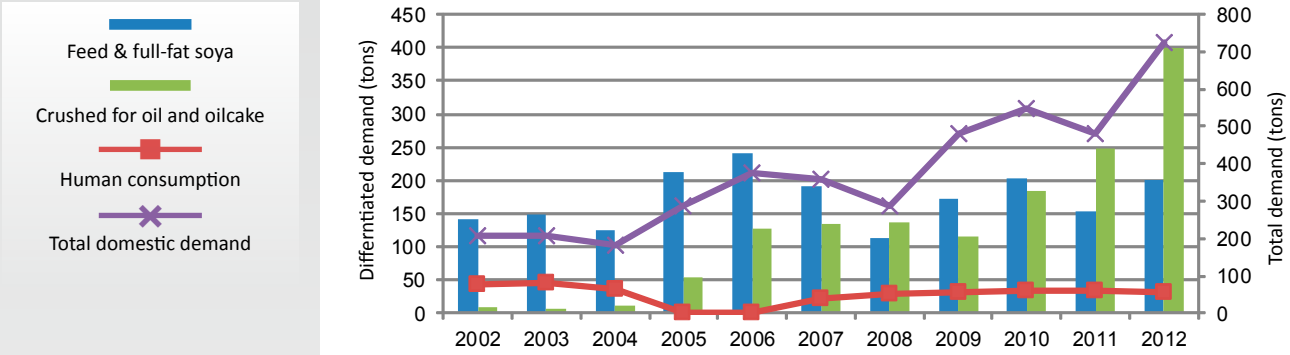


Figure 73: Area planted, production and demand for soybeans in South Africa

Source: SAGIS and own calculations, 2012

5.7.3 Soybean trade

The export of soybeans from South Africa differs from year to year. It is, on average, around 25 000 tons. It spiked in 2007 to 120 000 tons and decreased dramatically to nearly 0 tons from 2009. South Africa mainly imports high-protein meal from Argentina. Imports increased from 501 726 in 2002 to 946 016 tons in 2011 (ITC Trade Map, 2012),. The total value of soybean oil and meal imports in 2011 was US$733 million as illustrated in Table 38 .

Table 38: Import of soybean products for 2011

Soya products	HS code	Import value (2011) US$ thousand	Import quantity (tons)
Refined soya oil	150790	$297 277	220 092
Soy oil – cake	2304	$361 730	946 205
Soya oil crude	150710	$74 050	55 809
Total		**$733 057**	**1 222 106**

Source: ITC Trade Map, 2012

5.7.4 Price trends for soybeans

Figure 74 illustrates the domestic, import and export parity prices of soybeans. The domestic price decrease with 3.11% from December 2010 (R3 366 per ton) to December 2011 (R3 261 per ton). The import parity price increased by 6.5% over the same period and export parity with 2%.

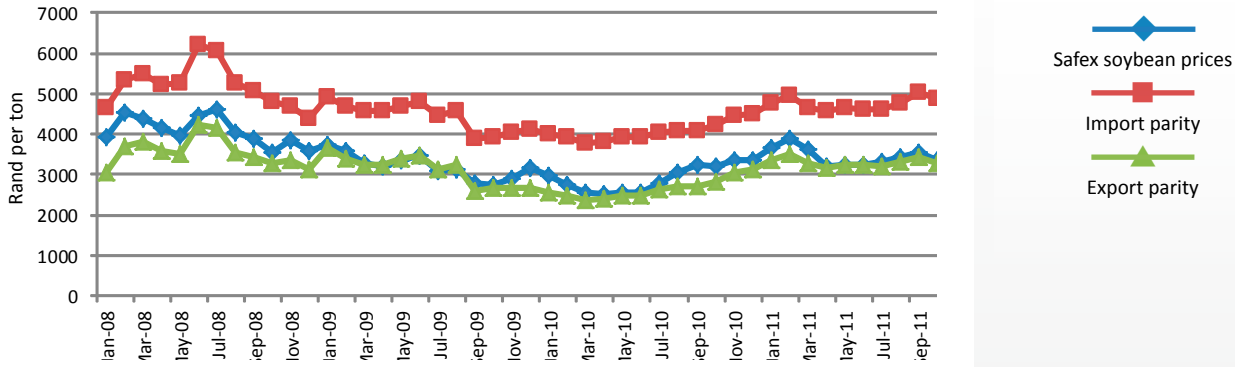


Figure 74: Price trends for soybeans

Source: Grain SA, 2012

5.8 Vegetable sector

Figure 75 shows the volumes of selected fresh vegetables sold at the national fresh produce markets from January 2008 to December 2011. The average volume of tomatoes, onions, and potatoes sold increased by 0.02%, 12.76% and 7.38% respectively from 2010 to 2011. The average volume of cabbages sold decreased by 2.14% from 9 251.49 tons in 2010 to 9 053.10 tons in 2011.

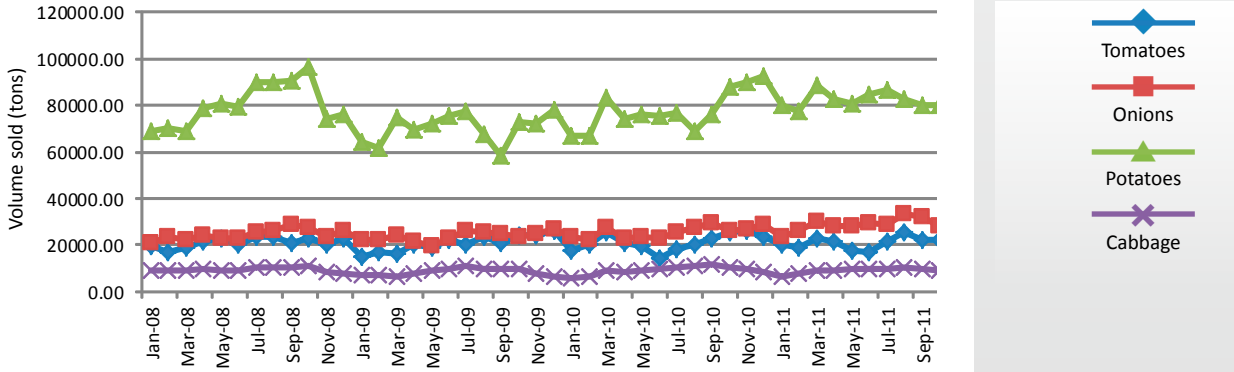


Figure 75: Volume of selected vegetables sold at fresh produce markets

Source: DAFF, 2012 and own calculations

The market price trends for selected fresh vegetables from January 2008 to December 2011 are shown in Figure 76. The market prices for selected vegetables were, on average, lower in 2011 than in 2010. In nominal terms, the average market price per ton of onions, tomatoes and potatoes was 15.20%, 1.54% and 1.32% lower in 2011 than in 2010. The nominal market price for cabbages was 5.61% higher in 2011 than in 2010.

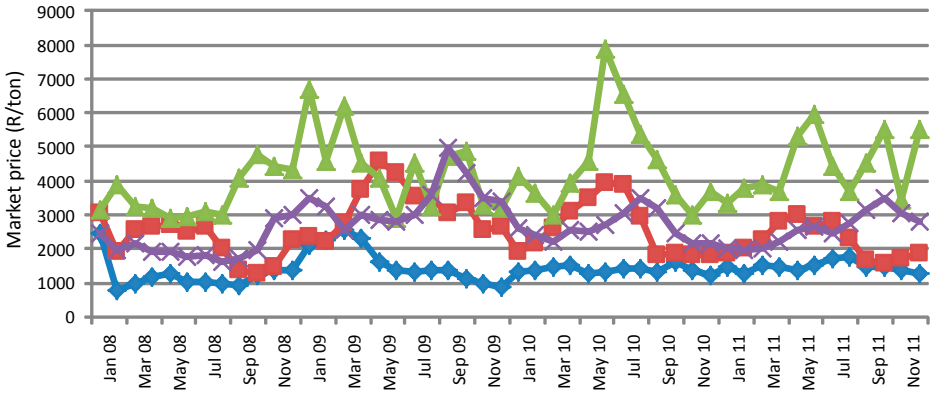


FIGURE 76: MARKET PRICE TRENDS FOR SELECTED FRESH VEGETABLES

Source: DAFF, 2012 and own calculations

Figure 77 depicts the nominal retail price trends for selected fresh vegetables from January 2008 to December 2011. Contrary to the nominal market price, the nominal average retail price for potatoes and onions in 2011 respectively was 0.68% and 0.45% higher than in 2010. On a similar note, the retail price of cabbage followed an increasing trend as the market price rose. The average retail price of cabbage increased by 5.89% between 2010 (R7.99/kg) and 2011 (R8.46/kg). The average retail price of tomatoes was 0.77% lower in 2011 than it was in 2010.

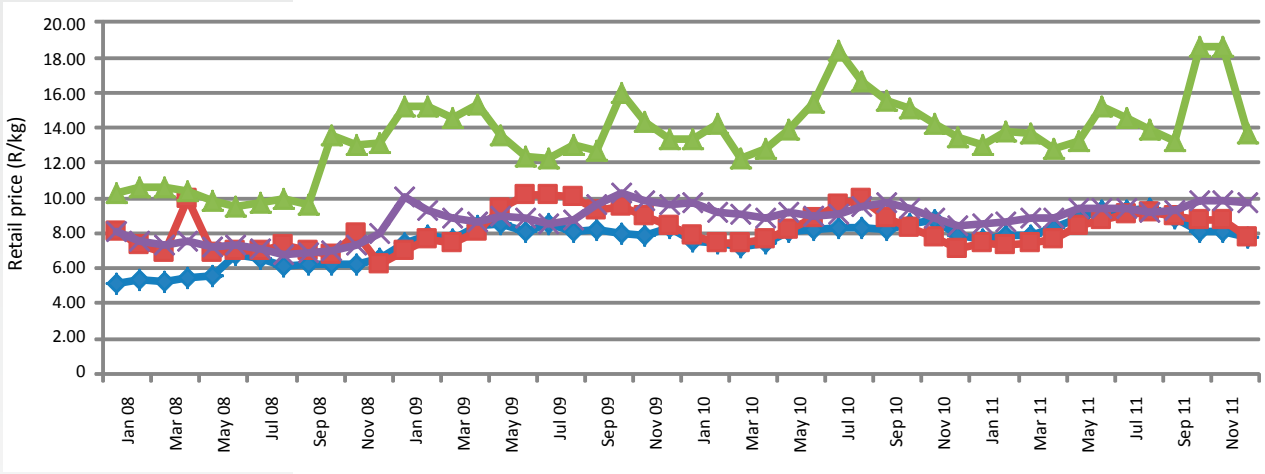


FIGURE 77: RETAIL PRICE TRENDS FOR SELECTED FRESH VEGETABLES

Source: Stats SA, 2012 and own calculations

Figure 78 shows the real FTRPS and the real farm vale share of cabbage. The real FTRPS of cabbage increased by 0.96%, on average, between 2010 and 2011. The real farm value share of cabbage decreased by 0.52%, on average, between 2010 and 2011.

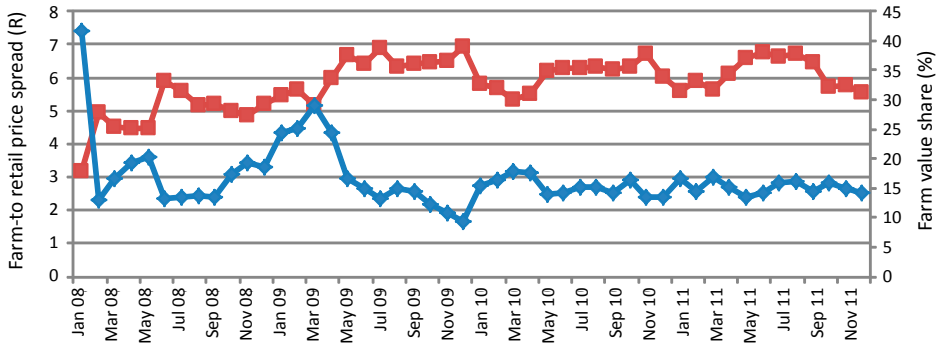


FIGURE 78: REAL FRPS AND FARM VALUE SHARE OF CABBAGES

Source: DAFF, 2012; Stats SA, 2012 and own calculations

The real FTRPS and the real farm value share of onions are depicted in Figure 79. The real FTRPS of onions increased by 1.34%, on average, between 2010 and 2011. The real farm value share decreased by 14.68%, on average, between 2010 and 2011.

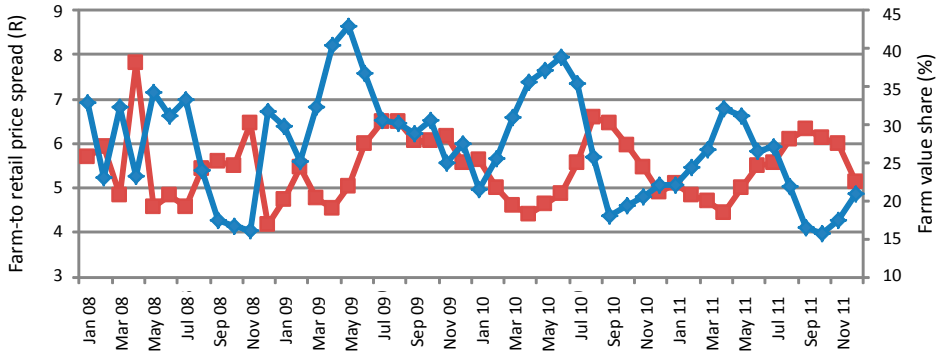


FIGURE 79: REAL FRPS AND FARM VALUE SHARE OF ONIONS

Source: DAFF, 2012; Stats SA, 2012 and own calculations

Figure 80 shows the real FTRPS and farm value share of tomatoes. The real FTRPS of tomatoes decreased by 5.25%, on average, between 2010 and 2011. The real farm value share of tomatoes increased by 1.32%, on average, between 2010 and 2011.

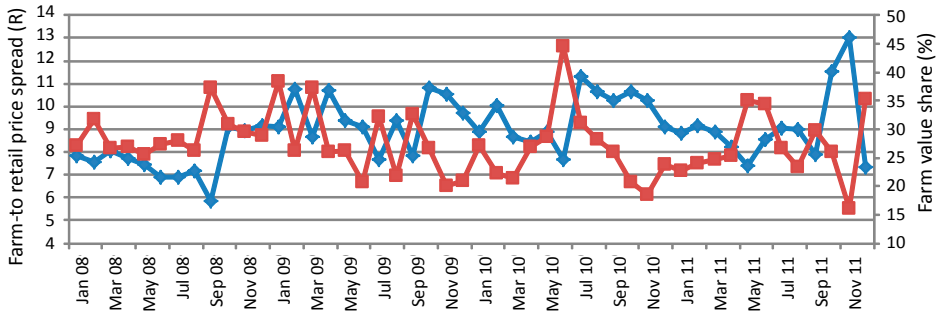


FIGURE 80: REAL FRPS AND FARM VALUE SHARE OF TOMATOES

Source: DAFF, 2012; Stats SA and own calculations

The real FTRPS and real farm value share of potatoes are shown in Figure 81. The average real FTRPS of potatoes decreased by 2.28%, on average, between 2010 and 2011. The real farm value share of potatoes decreased by 3.45%, on average, between 2010 and 2011.

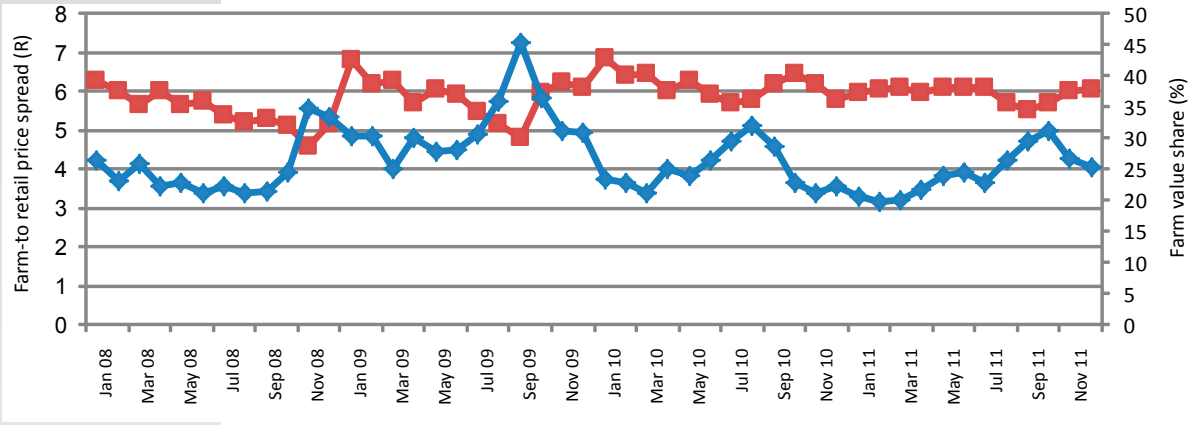


FIGURE 81: REAL FRPS AND FARM VALUE SHARE OF POTATOES

Source: DAFF, 2012; Stats SA, 2012 and own calculations

6 SELECTED TOPICS

6.1 PROFILE OF SOUTH AFRICAN CONSUMERS

6.1.1 CLASS MOBILITY IN SOUTH AFRICA

According to the South African Advertising Research Foundation (SAARF), the South African population can be divided into ten market segments based on socioeconomic status – the SAARF's Living Standards Measure (LSM) segments the population from LSM 1 (with the lowest socioeconomic status) to LSM 10 (with the highest socioeconomic status). Consumers could be considered as belonging to one of three subgroups within this spectrum, namely marginalised consumers (LSM 1 to LSM 3 – about 17% of the population), modern emerging consumers (LSM 4 to LSM 6 – about 50% of the population) and modern established consumers (LSM 7 to LSM 10 – about 33% of the population).

South African consumers are characterised by class mobility, where they move to higher LSM groups as a result of economic growth and socioeconomic empowerment. Figure 82 illustrates the dramatic decline in the share of the South African adult population classified in LSM 1 to LSM 3 between 2004 and 2011 (a 60% decrease), accompanied by an increase in the share of the adult population classified in LSM 4 to LSM 6 (a 22% increase), LSM 7 and LSM 8 (a 74% increase) and LSM 9 and LSM 10 (a 37% increase). Despite continued class mobility during this period, mobility slowed down somewhat between 2008 and 2011, which could be related to the impact of the economic recession and difficult post-recession economic conditions.

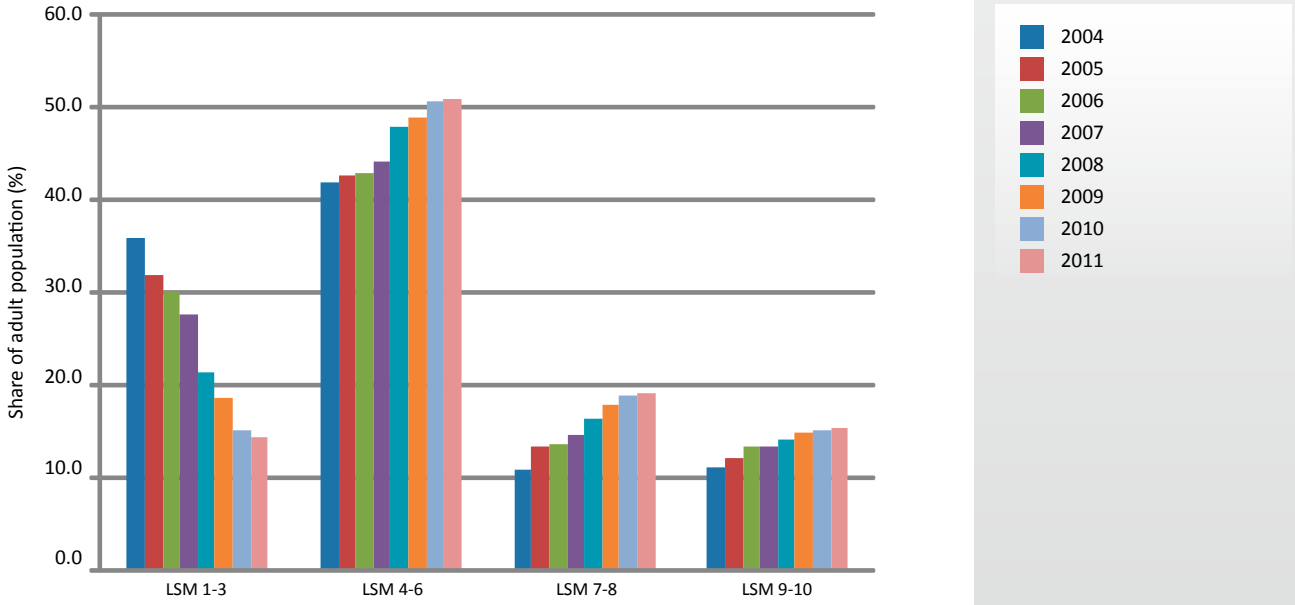


FIGURE 82: LSM CLASS MOBILITY IN SOUTH AFRICA DURING THE PERIOD 2005 TO 2011, BASED ON AMPS DATA FOR THE PERIOD 2004 TO 2011

Source: AMPS, 2012

When comparing AMPS data from December 2010 to June 2011, the decrease in the share of households in the income bracket under R799 per month was statistically significantly, dropping from 4.2% to 3.7%. The other significant change occurred in the income bracket R20 000 and more per month, where the share of households increased from 10.9% to 11.7% (SAARF AMPS, 2012).

These observations also support the notion of class mobility in South Africa in recent months. However, class mobility can only promote resilience to food inflation if the increase in household income due to class mobility exceeds the inflation rate. According to this source, the SAARF states that average household income increased by 3.9% from R7 868 (AMPS December 2010) to R8 175 per month (AMPS June 2011).

6.1.2 The estimated impact of food inflation on consumers during 2011

The purpose of this section is to explore the impact of food inflation on consumers during 2011. The analysis presented in the first part of this section is based on the cost of a basic food basket (as compiled by the Food Price Monitoring Committee in 2003), based on monthly average food price data for the period January 2011 to January 2012. As illustrated in Figure 83, from January 2011 to January 2012 the cost of this basic food basket increased by about R54.78 (+14.3%) in nominal terms from R383 to R438 (compared to an increase of only 1.4% from January 2010 to January 2011). It is evident from Figure 83 that the cost of a basic food basket increased more significantly in the second part of the analysis period (an increase of 10.6% from July 2011 to January 2012, compared to an increase of only 3.4% from January 2011 to July 2011). Considering the last few months of 2011, significant and steadily increasing month-on-month inflation was observed in this basic food basket from September 2011 to October 2011 (3.0%), October 2011 to November 2011 (2.4%), November 2011 to December 2011 (1.1%) and December 2011 to January 2012 (2.8%), amounting to a total increase of 9.4% in the nominal cost of the basic food basket from September 2011 to January 2012.

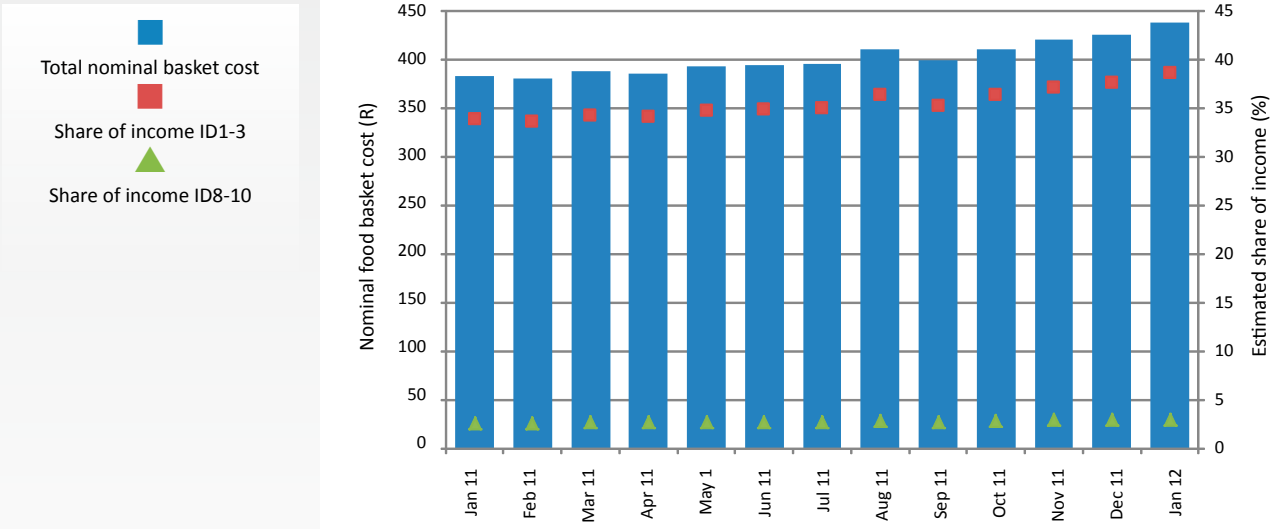


Figure 83: The cost of a typical consumer food basket for the period January 2011 to January 2012, expressed in nominal terms and as share of the average income of the poorest 30% of households (income deciles (ID) 1 to 3) and the wealthiest 30% of households (ID 8 to 10)

Source: Stats SA, 2012 and own calculations

The cost of this food basket, expressed as a share of the average monthly income of the poorest 30% of the population increased from 33.9% in January 2011 to 38.7% in January 2012, representing the highest share during this analysis period. The cost of the food basket expressed as a share of the average monthly income of the wealthiest 30% of the population increased from 2.7% to 3.1%. To further explore the impact of inflation on consumers, Figure 84 illustrates the average annual nominal cost of specific food groups in the basic food basket for the period January 2011 to January 2012. As could be expected, Figure 84 illustrates the dominance of animal protein foods, as well as bread and cereal, in the cost of the basic food basket. From January 2011 to January 2012, all the food groups in this particular food basket experienced inflation, in particular cereals (staple grain food products) with 26.6%, bean products with 20.9%, fats and oils with 13.9%, animal protein foods with 13.7%, coffee and tea with 11.8% and vegetables with 8.6%. Movements in selected food groups in this food basket with more significant contributions to overall inflation are discussed in more detail below.

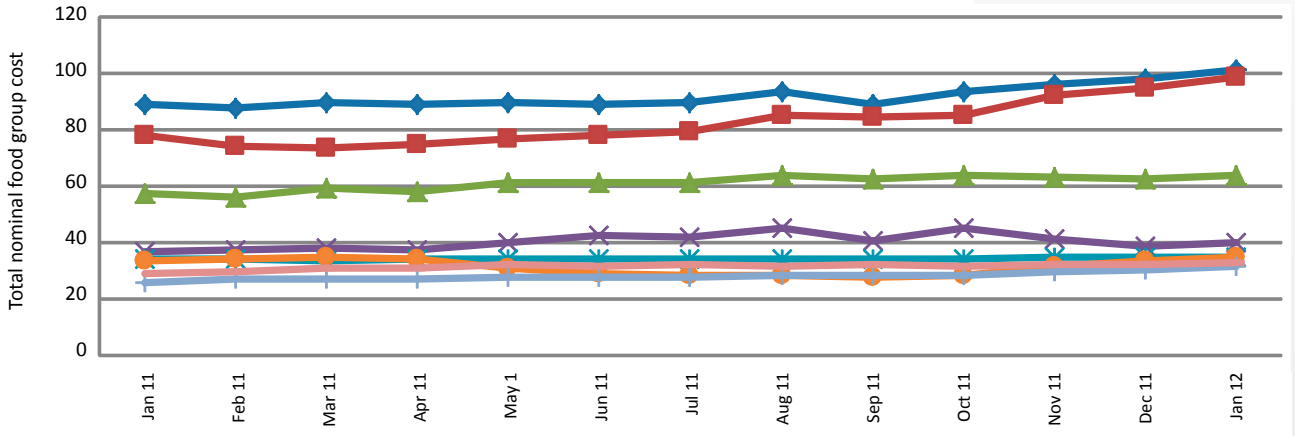


FIGURE 84: NOMINAL MONTHLY COST OF SPECIFIC FOOD GROUPS WITHIN THE BASIC FOOD BASKET, FOR THE PERIOD JANUARY 2011 TO JANUARY 2012

Source: Stats SA, 2012 and own calculations

Bread and cereals

Comparing January 2011 to January 2012, bread and staple cereals experienced the most significant inflation in this food basket (26.6%). From January 2011 to January 2012, nine month-on-month price increases were observed in this category. The increasing price trend in this category started around March 2011, with the most significant price increases occurring from July 2011 to August 2011 (6%) and in 2012 (3%). Price inflation on super and special maize meal made the most significant contribution in this group.

Bean products

Comparing January 2011 to January 2012, bean products experienced inflation of around 20%. From January 2011 to January 2012, ten month-on-month price increases were observed in this category, indicating a relatively steady price increasing trend. Inflation intensified in the last part of 2012 with significant price increases from October 2011 to November 2011 (4%), November 2011 to December 2011 (2%) and December 2011 to January 2012 (3%). Price inflation on peanut butter made the most significant contribution in this group.

Fats and oil products

Comparing January 2011 to January 2012, this category experienced inflation of around 13.9%. From January 2011 to January 2012, nine month-on-month price increases were observed in this category. The most significant inflation was experienced in the first part of 2011. Margarine contributed significantly more to inflation in this category compared to vegetable oil.

Animal protein foods

Comparing January 2011 to January 2012, animal protein foods experienced inflation of around 13.7%. From January 2011 to January 2012, eight month-on-month price increases were observed in this category. The consistently increasing price trend in this category started around September 2011, with the most significant price increases occurring from September 2011 to October 2011 (5.3%), October 2011 to November 2011 (2.7%), November 2011 to December 2011 (1.9%) and December 2011 to January 2012 (3.3%). Price inflation on beef chuck made the most significant contribution in this group, but chicken and tuna contributed substantially.

Coffee and tea

Comparing January 2011 to January 2012, coffee and tea experienced inflation of around 11.8%. From January 2011 to January 2012, five month-on-month price increases were observed in this category. Even though this category did not show such a strong steadily increasing price trend (more prone to price fluctuations), the most significant price increases occurred from February 2011 to March 2011 (6%), April 2011 to May 2011 (5.6%), July 2011 to August 2011 (4.5%), September 2011 to October 2011 (2.2%) and December 2011 to January 2012 (2.5%). Price inflation on coffee made the most significant contribution in this group, but Ceylon tea also contributed substantially.

Vegetables

Comparing January 2011 to January 2012, vegetables in this food basket experienced inflation of around 8.6%. From January 2011 to January 2012, seven month-on-month price increases were observed in this category. The price movements in this category were prone to price fluctuations and did not exhibit a consistent increasing trend. Price inflation on tomatoes and potatoes made the most significant contribution in this group, but onions and cabbage also contributed substantially.

6.1.3 The effect on household food security

When comparing January 2011 to January 2012, the significant price inflation (above 10%) experienced for important products, such as maize meal, peanut butter, margarine, stewing beef, bananas, coffee and vegetables, such as tomatoes and potatoes, could have a negative impact on household food security in South Africa, affecting the affordability of important staple foods, as well as food items that make a major contribution to dietary diversity. Furthermore, when comparing the inflation rates for January 2011 as opposed to January 2012, and those of January 2010 as opposed to January 2011, inflation increased for most groups.

The impact of inflation on very poor consumers is further explored below, based on the typical portion sizes of very poor consumers of the five most widely consumed food items in South Africa, represented by maize porridge, brown bread, sugar, tea and full cream milk (Steyn and Labadarios, 2000; Oldewage-Theron et al, 2005). Figure 85 illustrates the estimated portion costs of these foods, calculated from monthly food price data for the period January 2011 to January 2012. The significant cost contribution of maize meal and bread to the typical basic daily food selection for poor consumers is emphasised by the results in Figure 85.

Furthermore, despite the relatively low actual food weight contribution of bread to this 'food plate', the bread component costs significantly more than the maize porridge component (about 41% more in this case for January 2012). When comparing the costs associated with the typical portion sizes of very poor consumers for the five most widely consumed food items in South Africa, based on the prices of January 2012 as opposed to January 2011, the results in Figure 85 indicated inflation of about 10.3% (from R3.44 to R3.79 for the selection of portions). This was, in particular, due to inflation in the prices of maize meal, sugar and milk.

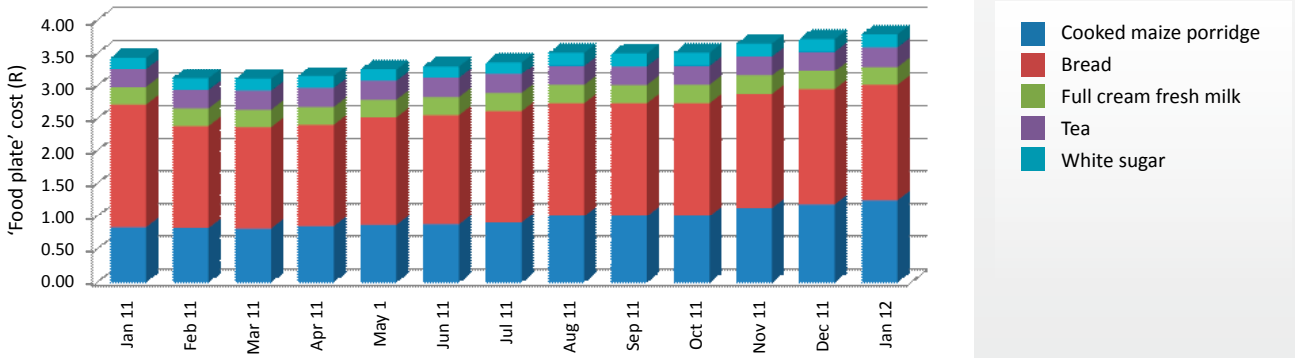


FIGURE 85: AVERAGE NOMINAL COST FOR THE TYPICAL PORTIONS OF THE FIVE FOOD ITEMS MOST WIDELY CONSUMED BY VERY POOR CONSUMERS IN SOUTH AFRICA, FROM JANUARY 2011 TO JANUARY 2012

Source: Stats SA, 2012 and own calculations

6.2 WHO AND WHAT IS THE MIDDLE CLASS?

In the previous section the issue of class mobility was discussed within the ambit of LSM classification. It was shown that class mobility is taking place whereby consumers are moving to higher LSM groups as a result of economic growth and socioeconomic empowerment. From a food marketing point of view this is vitally important since consumers' tastes and preferences will change as they move to higher LSM classes.

This sub-section briefly explores the concept of the middle class and then elaborates on the status of the middle call in South Africa.

6.2.1 Background

According to Cruces et al (2010) and Southall (2004), the term middle class is commonly used in the field of sociology and can be traced back to the Marxist economic theory, which emphasised the notion of class. Roy (2010) argues that class can be regarded as one of the best ways to explain variation in the consumption patterns of different groups of people. The available literature defines middle class in various ways, and such definitions may include one or more of the following: income range, income distribution, purchasing power, per capita expenditure and other socioeconomic variables, such as place and cultural aspects (Hertova et al, 2010).

It is important to note that the definition of middle class also depends on whether one approaches this group on a household or an individual level (Visagie and Posel, 2011) and on the tools used to analyse the middle class. The following illustrates the aforementioned:

- People that fall between the 20th and 80th percentile of consumption distribution with per capita income ranging between 0.75 and 1.25 times (Easterly, 2000; Birdshall et al, 2000).
- People that have an annual income over US$3900 in purchasing power parity terms (Bhalla, 2009).
- People with incomes between the median poverty line of countries in the developing world and that of the USA (Ravallion, 2009).
- People with an income falling between US$4 000 and US$17 000 in 2000 purchasing power parity terms (World Bank, 2007).

6.2.2 South African context of the middle class

In South Africa, the middle class is defined on the basis of whether an individual is residing in formal housing, having tap water inside the house, having electricity or gas as the main cooking source, and having a landline or cell phone (Stats SA, 2011). This definition is spread along the racial lines of the population and does not take income into account, even though many studies across the world use income as a common measure of the middle class. It is worth noting that the composition of the middle class varies according to races, depending on the tools being used for the definition (Visagie and Posel, 2011). For example, they argue that the racial composition of the middle class depends on the definition of the middle class being used. The middle class defined by affluence strongly under-represents Africans and over-represents Whites (although Africans comprise almost 50% of individuals in the middle class in percentage terms), whilst the racial composition of the middle class defined by the middle strata is predominated by Africans (over 80%) with a very small share of Whites (less than 3%). Notwithstanding the aforementioned the trend in terms of the growth in the middle-class is important in the context of this section.

Birdsall et al (2000) note that the middle-class is made up of households that are neither rich nor poor. These households play an anchor role and are the backbone of the economy and the advancement of growth in societies.

The population of South Africa is estimated at 50 million people (Stats SA, 2011); this can be broken down along racial lines into 41 million Blacks (79.5%), four million Coloureds (9%), one million Indians (2.5%) and four million Whites (9%). According to the findings of Stats SA's 2007 survey of South African middle class households between 1998

and 2006 there has been a significant increase in the percentage of all South African households with a middle-class standard of living, i.e. from 23% (1998-2000 to 26% (2004-2006). The study further shows that 85% of whites (approx 3.4 million people) and 75% of Indians (750 000 people) had a middle class standard of living. Coloured households with a middle-class standard of living increased from 41% in 1998-2006 to 48% in 2004-2006. The percentage of urban Black households with a middle-class standard of living rose from 15% to 22%, while almost no rural Black households had a middle-class standard of living. Investec (2011), citing SAARF, states that Blacks have largely dominated the number of individuals moving to the middle class in terms of income, in comparison to the number of Coloured, Indian and White individuals. According to Van Aardt (2011), the number of people in the emerging Black middle class amounted to about 13.2 million in 2005. It is furthermore important to be cognisant of observation by Southall (2004) that the racial lines of the population are a major determinant of social structure of South Africa.

This is especially important when one considers the observations by Nieftagodien and Van der Berg (2008), namely: firstly, there was little attention given to the consumption patterns of the majority of the population in the past, secondly, before 1993, the South African income and expenditure surveys to determine the consumer price index was excluding the black population, and thirdly, consumption patterns may also differ systematically by population group at a given expenditure level, either because tastes between population groups differ, or because groups have a different history, e.g. urbanization and asset accumulation. For example, one can argue that the impact on the food marketing system of an increase in the size of the White and Indian middle class will be significantly smaller than an increase in the size of the Black middle class.

Moreover, Nieftagodien and Van der Berg (2008) argues that with an increasing proportion of the population (blacks) that breaks from low levels of consuming nutritious food, income and employment opportunities to higher levels due to removal of restrictions on black upward mobility and affirmative action practices will create a mass consumption society. In economic terms, the higher the income, the higher the demand. In other words, when individuals move to higher income brackets and LSM segments, the level of economic activity improves (Investec, 2011). Furthermore, the consumption of services (such as transportation and communication, security, rentals and imputed rent for owner-occupied buildings, education, wages for domestics, medical services, entertainment and recreation, stationery, newspapers and magazines, recording media, water and electricity, fuel, beverages, food and tobacco, pharmaceuticals, consumer goods, clothing and footwear, household textiles, furnishings, glassware, motor vehicle tyres, books, toys, sport and hobby equipment, personal goods, writing and drawing equipment and supplies) increases as the population's income and standard of living improves (Investec, 2011).

6.2.3 Other reasons why the middle class is important

Lopez-Calva and Ortiz-Juarez (2011) urgue that the middle class makes provision for both a skilled and productive labour force. Furthermore, other research (Hertova et al, 2010; OECD, 2010 and Investec, 2012) show that the growth of the middle class stimulates the demand for goods and services, the degree of governance and social cohesion, and has the potential to bring about a stable democracy. This can be attributed to better skills, education and income, as well as a better potential for entrepreneurship and innovation in the middle class (Investec, 2012). Furthermore, a strong middle class

– through its emphasis on human capital investment, consumption and savings – produces economic benefits that foster economic development and expand the middle class (Hertova et al, 2010).

6.3 The fundamental right to food and food security: Perspective on South Africa

6.3.1 Background

> One of the most profound challenges that we face as a community of nations is to understand better the emerging socio-economic forces and forms of globalization, to shape them to serve our needs and to respond effectively to their deleterious consequences.
>
> – Kofi Annan (1998)

Amidst a slew of global crises – climate change, energy shortages, food prices hikes and economic recession – the words of Mr. Annan as quoted above are perhaps more poignant today than when they were first spoken and nowhere more so than in sub-Saharan Africa (SSA).

Over the course of the last five decades, global agricultural production has steadily increased on a nearly annual basis, yet, as a result of a proliferation of factors ranging from the political to environmental, the number of people suffering from chronic hunger has steadily increased to reach an estimated total of 1.02 billion in 2009. As a result, for the first time in human history, more than one billion people – many of them farmers themselves – are undernourished. Africa is among the world's regions most direly affected by hunger. More than 200 million people across the continent suffer from chronic malnutrition with one in three Africans regularly not having enough to eat.

With the threats of environmental degradation and climate change looming ever more clearly, more people than ever before are competing over limited and declining resources such as water, land and production inputs. Further complicating matters, is that the world population is estimated to balloon to nearly nine billion by 2050, yet the majority of these people will not be living in rural areas as is currently the case. As Steve Wiggins of the United Kingdom (UK) based Overseas Development Institute (ODI) notes, 'We may be observing the last time that the majority of the rural population of the world are farming: youth are, in their large numbers, not interested in small-scale agriculture' – not least as a result of the hardships endured by their forebears attempting to make a living in the sector. Thus, with the demand for food expected to increase substantially in the not-too-distant future, the number of people invested in production is declining.

6.3.2 The right to food

Stemming from the right to life, the right to food guarantees freedom from hunger to every human person. This represents a very basic entitlement, i.e. to marshal the means to feed oneself with dignity, yet, as the abovementioned statistics illustrate, one billion of the world's citizens face the violation of this right on a daily basis.

Of consequence to global and national administrations is the fact that human rights are not simply moral guidelines, but legally binding obligations that must be respected throughout all branches of domestic and international policy formulation. The right to food is one such obligation, enjoying universal acceptance and protection in the Charter of the United Nations (UN), in binding treaties ratified by a large number of states, Regional Human Rights Treaties, voluntary guidelines, national legislation as well as in political commitments made by heads of state. In recent years, the 2009 World Summit on Food Security in Rome confirmed the commitment of all states to work towards the realization of the right to food.

What this means in the realm of trade and economics (which form the drivers of agricultural activity), is that states are required to respect their obligations under one regime when entering agreements in another, contributing to coherence between human rights and economic development strategies. However, in order to encourage mobilization of national resources toward realizing the right to food, it is important to understand exactly what the right to food entails.

6.3.3 Origin and development

The World Food Summit, under the direction of the UN Food and Agriculture Organisation (FAO), convened for the first time in Rome, Italy between 13 and 17 November 1996. The Summit requested that the right to food as recognized in the 1948 Universal Declaration of Human Rights, and enshrined in the 1966 International Covenant on Economic, Social and Cultural Rights (ICESCR) be given a more concrete and operational content. This led to the adoption of the Rome Declaration on World Food Security in which member states undertook to:

> ... pledge our political will and our common and national commitment to achieving food security for all and to an ongoing effort to eradicate hunger in all countries, with an immediate view to reducing the number of undernourished people to half their present level no later than 2015.

As a result of the Summit and ensuing Declaration, a number of initiatives were undertaken on the international level:

- In 1999, the UN Committee on Economic, Social and Cultural Rights (CESCR) – the body of independent experts monitoring States' compliance with the ICESCR – adopted its General Comment 12 on the Right to Food. General Comments are not legally binding but are authoritative interpretations of the ICESCR, which is legally binding upon ratifying states.
- In 2000, the mandate of the Special Rapporteur on the Right to Food was established by the UN Commission on Human Rights by resolution 2000/10 of 17 April 2000.
- In 2003, an Intergovernmental Working Group was established under the auspices of the FAO in order to prepare a set of guidelines on the implementation of the right to food. This process led to the adoption on 23 November 2004, by the 187 Member States of the General Council of the FAO, of the Voluntary Guidelines to Support the Progressive Realization of the Right to Adequate Food in the Context of National Food Security. The Guidelines build on international law and are a set of recommendations States have chosen on how to implement their obligations under article 11 of the ICESCR.

a. Scope

The right to food enshrines the right of all human beings to procure the food required to meet their dietary needs, either by producing it themselves or by purchasing it. Food production requires certain basic inputs such as land, seeds, water, energy and human capital, while purchasing it entails the ability to generate sufficient income to participate in the market. The right to food thus requires governments to establish an 'enabling environment' in which people can mobilize their full potential to produce or procure adequate food for themselves and their families, by investing in agriculture, but also by ensuring that national wage policies or social safety nets empower citizens to realize their right to sufficient food.

As authoritatively defined by the ICESCR in its General Comment 12:

> The right to adequate food is realised when every man, woman and child, alone or in community with others, has physical and economic access at all times to adequate food or means for its procurement.

The UN Special Rapporteur on the Right to Food has developed the definition further:

> The right to have regular, permanent and unrestricted access, either directly or by means of financial purchases, to quantitatively and qualitatively adequate and sufficient food corresponding to the cultural traditions of the people to which the consumer belongs, and which ensure a physical and mental, individual and collective, fulfilling and dignified life free of fear.

From these definitions it is clear that the right to food does not establish a right to a minimum portion of calories, proteins and other essential nutrients, or a right simply to be fed via aid or emergency relief efforts. It guarantees the right to feed oneself, which requires not only that food is available – that the ratio of production to the population is sufficient – but also that it is accessible – i.e. that each household either has the means to produce its own food, or to lawfully procure it by some other means.

This does not, however, relieve the state (or the international community) from its obligation to intercede in instances where people are not able to feed themselves via their own means, e.g. because of an armed conflict, natural disaster or because they are being held in detention, in which cases states are required to provide food directly.

b. Elements

From the definitions developed in various forums, including those quoted above, states' obligation to meet the right to food can be divided into three basic factors, i.e. availability, accessibility and adequacy of food supply.

- **Availability**, on the one hand, requires that food should be derived from natural resources, either through the production of food, by cultivating land or animal husbandry, or through other means of obtaining food, such as fishing, hunting or gathering. On the other hand, it means that food should be available for sale in markets and shops.
- **Accessibility** foresees economic and physical access to food to be guaranteed, with economic accessibility referring to people's ability to meet the price of the food being offered for sale. This is only realised if individuals are able to afford the food required for a nutritionally adequate diet without compromising on other essentials, such as basic education, medical care or housing. Physical accessibility entails that food should be accessible to all, including to the physically vulnerable, such as children, the sick, persons with disabilities, or the elderly, for whom it may be difficult to venture long distances to procure it.

- **Adequacy** means that the food should satisfy dietary requirements, taking into account all factors relevant to a person's circumstances such as age, living conditions, health, occupation, gender, pregnancy or lactation in the case of women, and so on. This means that if, for example, a child's food does not contain the nutrients necessary for his physical growth and healthy mental development, the requirement of adequacy is not met. Food should also be safe for human consumption and free from malignant substances, such as contaminants from industrial or agricultural processes, including residues from pesticides, hormones or veterinary drugs. Adequate food should also be culturally acceptable, e.g. aid containing food that constitutes a religious or cultural taboo for the recipients or that is inconsistent with their eating habits would not be culturally acceptable and therefore inadequate.

c. Universal Recognition

The right to food is universally recognized and protected under international human rights and humanitarian treaty law as well as international custom and the correlative state obligations are equally well-established. Some of the most authoritative sources are briefly discussed below:

- The right to food was first codified in the 1948 Universal Declaration of Human Rights as part of the right to an adequate standard of living, and is enshrined in the 1966 International Covenant on Economic, Social and Cultural Rights.
- It is also included in specific international instruments such as the Convention on the Rights of the Child, the Convention on the Elimination of All Forms of Discrimination against Women, or the Convention on the Rights of Persons with Disabilities.
- The right to food is also incorporated into regional instruments, such as the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights, known as the Protocol of San Salvador (1988), the African Charter on the Rights and Welfare of the Child (1990) and the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (2003) as well as in many national constitutions.
- Several non-legally binding international human rights instruments, including recommendations, guidelines, resolutions or declarations, are also relevant to the right to food. One such soft-law instrument, which is by far the most direct and detailed, is the Voluntary Guidelines to Support the Progressive Realisation of the Right to Adequate Food in the Context of National Food Security ('Voluntary Guidelines'). These Guidelines represent a practical tool to help implement the right to adequate food on a national level.

d. Domestic Obligations

As stated in the CESCR's General Comment 12 and also in the Voluntary Guidelines referenced above, countries, as the baseline frontier for the realization of human rights, must first and foremost implement the right to food at the national level. These standards for the implementation of the right to food at national level have consequences for national constitutions, laws, courts, institutions, policies and programmes, and for various food security topics, such as fishing, land, focus on vulnerable groups, and access to resources.

National strategies on the realization of the right to food should fulfill four functions:

- Define the obligations corresponding to the right to adequate food, whether these are the obligations of government or those of private actors;
- Improve the coordination between the different branches of government whose activities and programmes may have an impact on the realization of the right to food;
- Set targets, ideally associated with measurable indicators, defining the timeframe within which particular objectives should be achieved;
- Provide for a mechanism ensuring that the impact of new legislative initiatives or policies on the right.

e. International Obligations

The right to food imposes on all states an obligation, not solely toward the persons living within their national territory, but also towards the populations of other states. These two sets of obligations complement one another. The right to food can only be fully realized where both 'national' and 'international' obligations are complied with.

- National efforts will often remain of limited impact in combating malnutrition and food insecurity unless the international environment, including not only development assistance and cooperation but also trade and investment regimes or efforts to address climate change at a global level, facilitates and rewards these national efforts.
- Conversely, any efforts by the international community to contribute to these objectives will depend, for their effectiveness, on the establishment of institutional and legal frameworks at the national level, and on policies which are effectively geared towards the realization of the right to food in the country concerned.

6.3.4 Food security

The concept of food security is, for most nations, a national goal rooted in the political aims of safety and stability in society. Food security is closely related to the right to food and may be seen as the actualisation thereof on an economically measurable scale. The World Food Summit of 1996 defined food security as existing 'when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life'. Deriving from the elements of the right to food, the concept of food security is defined as including both physical and economic access to food that meets people's dietary needs as well as their food preferences. Like the right to food, food security is built on three pillars:

- Food availability: sufficient quantities of food available on a consistent basis;
- Food access: having sufficient resources to obtain appropriate foods for a nutritious diet; and
- Food use: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.

Food security is a complex sustainable development issue with an interdisciplinary impact. The obvious effects of malnutrition links it to health; the aspect of affordability ties it to income generation and sustainable economic development; environmental concerns such as climate change threaten profound effects on the production and thus the availability of staple crops; while trade, particularly with regard to agricultural commodities and the regulation thereof, is a significant consideration in everything from infrastructure development, job creation and the preservation of rural livelihoods, to

ensuring food supply. There is a great deal of debate around the actual status of world-wide food security, with the following arguments commonly put forward:

- There is enough food in the world to feed everyone adequately – the problem is distribution;
- Future food needs can – or cannot – be met by current levels of production;
- National food security is paramount – or no longer necessary because of global trade;
- Globalization may – or may not – lead to the persistence of food insecurity and poverty in rural communities.

6.3.4.1. The South African context

a. Poverty and food insecurity

While South Africa is currently considered food secure on a national level, recent research indicates that household food insecurity is an insidious and in many cases crippling concern. Despite efforts being made under the auspices of the IFSS and other national strategic and departmental objectives, South Africa continues to experience major challenges of poverty, unemployment and, more recently, steep increases in food and fuel prices, energy tariffs and interest rates. These adverse conditions have placed ordinary South Africans, already struggling to meet their basic household needs, in an ever more vulnerable situation.

Poverty and food insecurity manifest themselves differently in rural and urban areas. The 2007 UN World Urbanization Prospects underscores a rising trend in urbanization in South Africa, estimating that by 2010 over 30 million people – 61.7 percent of the total population – will reside in urban areas. Moreover, the UN Prospects indicate that the rural annual population growth rate is negative at −0.92 percent, compared to a positive growth rate of 1.17 percent in the urban areas, informing the conclusion that the differences in the presence of hunger by area of residence (urban or rural) and by province were both statistically significant ($p<0.0001$). Between 1980 and 2009, South Africa's Human Development Index (HDI) rose by 0.14 percent annually, from 0.658 to 0.683 in 2009, still affording the country a relatively low ranking of 129th out of 182 countries, measuring close to that of India, which came in at number 134, but far removed from that of Brazil, which ranked at 75.

Given that food insecurity in South Africa is mainly related to a lack of food purchasing power, the Human Poverty Index (HPI) also provides an enlightening statistic to take into consideration. The HPI focuses on the proportion of people below certain threshold levels in each of the dimensions of the HDI:

- Living a long and healthy life;
- Having access to education; and
- Having a decent standard of living.

The HPI value of 25.4 percent for South Africa places the country at 85th among the 135 countries for which the index has been calculated. Table 40, extracted from the 2009 UN World Development Report, provides an overview of the main indicators for selected countries.

Box 1

Addressing food insecurity in the South African context: the story of the Miraculous Moringa Oleifera tree

Despite research findings that South Africa is insecure at household level, numerous attempts have been made to overcome this problem. The Sedikong sa Lerato, a drop-in feeding centre, is embarked on a project for feeding children from the households of Tooseng village in the Limpopo Province. The children in this area were malnourished because agricultural production is not sustainable and the high prevalence of poverty. The aim of the centre is to reduce the level of food insecurity in the village.

As part of the feeding scheme, a discovery made by a woman farmer from the Limpopo Province, Mavis Mathabatha, restored hope to the community of Tooseng Ga-Mphahlele. Ms Mathabatha discovered the Moringa oleifera (Moringa), also known as the miraculous tree, to have nutritional benefits if consumed. From an interview with Ms Mathabatha, it transpired that Moringa has multiple uses which include food supplement for malnourished people. Moringa is a source of Vitamin A, Calcium, Potassium, Protein, Vitamin C and essential amino acids.

Remarkable results were seen in the health status of the children from the Tooseng village after being fed with Moringa. Children who used to faint in class have regained strength, thanks to the highly nutritious Moringa tree.

Table 39: The Human Development Index and its components

HDI value	Life expectancy	Adult literacy	Education enrolment	GDP per capita (PPP in US$)
1. Norway	1. Japan	1. Georgia	1. Australia	1. Liechtestein
75. Brazil	81. Brazil	71. Brazil	40. Brazil	78. South Africa
129. South Africa	128. India	80. South Africa	77. South Africa	79. Brazil
134. India	158. South Africa	120. India	134. India	128. India
182. Niger	176. Afghanistan	151.Mali	177. Djibouti	181. Congo DR

Source: UNDP (2009)

The interesting picture that emerges from these statistics is that each of the three countries performs very differently in each of the HDR categories, highlighting the uniqueness of each situation and potential for dialogue between their respective governments. While these global statistics provide valuable tools on a macro-level, grassroots data – describing the real-life experiences of individuals who are unable to procure sufficient food for themselves and their families – necessary for addressing individual infringements of the right to food, is not widely available. A recent study aimed at remedying this gap, is a survey-based case analysis conducted in Limpopo among 600 households across the province. The study was an internationally collaborative effort between experienced Belgian researchers, local and foreign universities and government entities, with partial funding provided by the NAMC.

The objectives of the study were straightforward:

1. Development of a readily accessible assessment tool to measure food security vulnerability
2. That can be utilized for policy advice and the drafting of new strategies related to food security.

One of the key achievements of the study is that the model used significantly shortened the time between data collection and publication of the report to approximately one month (as opposed to several years as had been the case in previous research) making this an excellent model to deploy as a rapid response mechanism in times of crisis, as well for micro-level policy formation and short-term relief efforts.

The study identified the following determinants to relate strongly to a household's likelihood of being food insecure:

- **Education level:** higher levels of education resulted in lowered vulnerability to food insecurity;
- **Household income:** higher per capita income levels of adults in the household coupled with a lower dependency ratio, i.e. less people depending on the income of another, resulted in greater food security;
- **Dependency on grants and gifts:** higher levels of dependency on grants and gifts upped the likelihood of a family being unable to procure sufficient food;
- **Type of employment:** the greater the skill level of employed members, the lesser the likelihood of the household being food insecure;
- **Female-headed households:** households without a male breadwinner were less likely to suffer from food insecurity.

From these determinants, the study suggests the following list of policy priorities to address not only the lack of sufficient food, but the underlying causes of food insecurity:

- Promote education in the rural areas;
- Decrease dependency ratio and sustainability of income by creating job opportunities and facilitating the labour market in the rural areas;
- Support female-headed household with special focus on developing a gender-sensitive approach in rural development policy making;
- Adapt the grant system to promote employment and contribute to labour-based sources of income;
- Promote the potential for household food production to contribute to food self-sustainable food security.

b. Governance framework

The adoption of South Africa's Constitution early in 1997 marked the enactment of one of the world's most liberal constitutions. Several of the provisions enshrined in the Bill of Rights are aimed at ensuring the physical well-being and health of all South Africans, including the right to food.

As part of the 'policy revolution' galvanised after the 1994 election, influenced by the country's poverty and food insecurity concerns, emphasis was placed on the development of a comprehensive food-security strategy. Given the lack of a pre-existing and unified approach, cabinet opted to formulate a national strategy to be implemented under the auspices of DAFF, culminating in the 2002 adoption of the Integrated IFSS. This represented the first unified attempt by government to address the constitutional provision of the right to food and still remains one of the core pillars of South Africa's food security policy landscape. The IFSS's overarching aim is linked to the Millennium Development Goals (MDGs), in particular MDG1, i.e. to '*half the incidence of hunger, malnutrition and food insecurity by 2015*'. However, South Africa is one of only a handful of countries without official statistics on progress made in this regard. The IFSS identifies the following five objectives:

1. Increased household production and trading;
2. Improved income generation and job creation opportunities;
3. Improved nutrition and food safety;
4. Increased safety nets and food emergency management systems; and
5. Improved analysis and information system management.

The IFSS has adopted a broadly developmental rather than strictly agricultural approach to food security. It focuses mainly on the core problem of household food insecurity, without overlooking national food security concerns. Building on the MDG1 vision quoted above, the IFSS strives to develop the concept and understanding of food security along the lines of four distinct but inter-related components:

1. **Food availability:** an effective or continuous supply of food at both national and household level. This is affected by input and output market conditions, as well as the production capabilities of the agricultural sector.
2. **Food access or effective demand:** the ability of the nation and its households to acquire sufficient food on a sustainable basis. This addresses issues of purchasing power and consumption behaviour.
3. **Reliability of food:** utilisation and consumption of safe and nutritious food.
4. **Food distribution:** equitable provision of food to points of demand at the right time and place. This spatial/time aspect of food security relates to the fact that a country might be food-secure at the national level, but still have regional pockets of food insecurity at various points of the agricultural cycle.

The IFSS has five broad pillars:

1. Production and trading;
2. Income opportunities;
3. Nutrition and food safety;
4. Safety nets and food emergency; and
5. Information and communications.

Table 41 offers an overview of the structure of the IFSS, its pillars, scope, beneficiaries, main programmes and the allocated budget.

Table 40: Structure of IFSS

Pillar	Scope	Beneficiaries	Main programme
Pillar 1:			
Production and trading	To ensure that identified food insecure populations gain access to productive resources to produce food	Vulnerable groups (e.g. female-young headed households, young people, disabled), small-scale farmers, emerging farmers and commercial farmers	Comprehensive Agriculture Support Programme, budget 2010/11: US$119 million
Pillar 2:			
Income opportunities	To ensure that people have access to income and job opportunities to enhance food related purchasing power.	Vulnerable groups (mainly young people and food-insecure households)	Expanded Public Works Programme, budget 2010/11: US$54 million
Pillar 3:			
Nutrition and food safety	To ensure that food insecure people are empowered to make appropriate decisions around nutritious and safe food	Mainly poorest (community poverty levels 1st and 2nd quintile), primary and secondary schools.	School Nutrition Programme, expanded budget: 2010/11 US$500 million
Pillar 4:			
Food safety nets and emergencies	To ensure that state provides relief measures which could be short-to-medium term on a sustained basis	Vulnerable groups, children, elderly, disabled and those in destitution.	National Social Security Scheme, budget 2010/11: US$12.4 billion, including US$96 million for Social Relief from Distress

Source: OPCIG (2011)

Since the adoption of the IFSS, the South African administration has penned a number of expanding strategies and policies geared at realising the right to food, citing variations of the pillars and objectives identified in the IFSS. These include the Zero Hunger Programme of 2009, and, notably, the strategic objectives identified in the government's Medium Term Strategic Framework (MTSF) for the period 2009–2014 entitled '*Together Doing More and Better*'. In addition to these programmes, the government has also adopted twelve national outcomes geared at the implementation of national priorities, including universal food security. Among these is Outcome 7, citing '*vibrant, equitable and sustainable rural communities and food security for all*.'

In keeping with international codes, the Outcome 7 Delivery Agreement frames food security policy in terms of food availability, accessibility, utilisation and affordability. It sets out the key work to be completed by 2014 as well as long-term targets for improving food security by identifying the specific activities particular departments must undertake to reach the outlined goals. Although the Outcomes are not legally bind-

ing, the Government has committed to ensuring the achievement thereof through the establishment of the Department for Performance Monitoring and Evaluation (DPME) within the Office of the Presidency.

c. Realising the right to food

The situation on the legislative side is promising, as South Africa has ratified the majority of the core international human rights instruments that protect the right to food. The Constitution guarantees the right of every South African to have access to sufficient food and to social security, including – if individuals are unable to support themselves and their dependents – appropriate social assistance. The Constitution further obliges the state to take '*reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of these rights*'. One shortfall in the country's regulatory framework is that it has not yet ratified the ICSECR, despite the Constitutional Court having developed an interpretation of economic, social and cultural rights which is considered to be among the most progressive in the world.

While these various legislative, strategic and policy measures are encouraging as a demonstration of the government's commitment to address problems of food insecurity, commitments must translate into concrete action in order to be relevant. As illustrated by the studies quoted above, tremendous disparities in food security persist, linked strongly to inequality in terms of geography, gender and race. In order to overcome the long-standing obstacles with regard to the realisation of the right to food, the various strategies and policies, and in particular the government's Outcomes Approach, must be strengthened by adopting a rights-based foundation. This requires that the setting of targets and the identification of concrete measures to be adopted should be the result of meaningful public participation; that the authorities responsible for implementation should be held accountable for results; that the indicators allowing the measure for progress should be based on the normative components of the right to food, including non-discrimination.

Most importantly, to ensure accountability, independent monitoring of the government's efforts is required, which may be entrusted to the South African Human Rights Commission. Additionally, fencing of resources is required to ensure sustainable funding of these plans. Until these different conditions are met, the various strategies may remain ineffective as there will be no sanction associated with a failure to deliver.

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8 ANNEXURES

Annexure 1:
Methodology to calculate the costs and margins in maize to maize meal value chain

1. The **farm gate price** (also known as the producer price) is derived from:

   Average SAFEX spot price maize (September 2010 to August 2011) lagged by 4 months.

   Minus

   Average SAFEX differential (6)

   Minus

   Average storing cost for farmers (4)

   Minus

   Average handling, grading, procurement fee and 1% physical loss fee (3)

   Minus

   Transport cost: farm gate to silo (2)

2. **Transport cost, farm gate to silo:** Was calculated as R1.13/km/ton maize for an average of a trip of 20 kilometres to the silo and 20 kilometres back.
3. **Average handling, grading, procurement fee and 1% physical loss fee:** Was calculated as an average on the physical cost for seven silo owners and a R35 procurement and a 1% physical loss fee.
4. **Average storage cost for the farmer:** Was calculated as weighted average for one third stored for 0 days, one third stored for 60 days on a daily tariff and one third stored on the yearly tariff. The above calculation is based on the opinion from industry leaders.
5. **SAFEX-derived price for the seller/buyer at the silo:** Was calculated as follows:

   Average SAFEX spot price for white maize (2010 and 2011) lagged with four months

   Minus

   Average location differential

6. **Average location differential** was calculated as a weighted average of all the transport differentials for 2010/11 season as published by the Johannesburg Stock Exchange's Agricultural Product Division of the future exchange market (SAFEX) for all registered silos handling maize.
7. **Average SAFEX spot price for white maize (2010/11) lagged with four months** is an average for all the trading days from 1 September 2010 to 30 August 2011. Statistical testing proved that the level of correlation between the producer price and the consumer price is the highest when the producer price is lagged by four months. This implies that it takes four months from the moment the miller buys the maize until it appears on the shelf of the retailer.
8. **Storage and handling cost: cost to the miller** is based on opinions from industry players and is calculated as daily tariff times 120 days' storage.
9. **Transport costs: silo to mill door**

   It is the opinion of industry players that the bigger millers are very close to urban areas. Therefore their transport costs were calculated as 80% of the transport differential.

10. **Income from sale of chop**

    The income from the sales of chop is based on an average paid by feedlots in 2011 on 37% (1 – extraction rate) of the product.

11. **Mill door price:** Was calculated as follows:

    Averages SAFEX spot price for white maize (2010/11) four months lagged

    Plus

    Storage and handling costs: cost to miller

    Plus

    Transport costs: silo to mill door

    Minus

    Income from sale of chop

12. **Mill site cost:** The fixed and variable cost of manufacturing is based on opinions from the industry. The mill site cost is the sum of the production cost, packing cost, packing material cost and losses.
13. **Total mill site cost:** Total mill site cost is distribution cost plus mill site cost.
14. **Fixed capital cost:** This cost is based on opinion of industry players.
15. **Floating capital cost:** This cost is based on opinion of industry players.
16. **Total manufacturing and distribution cost:** This cost is a summation of all the manufacturing costs.
17. **Conversion cost:** This is the total manufacturing and distribution cost.
18. **Average cost of maize (mill door price):** This is the mill door price for maize.
19. **Total super maize meal cost:** Is the conversion cost plus the total manufacturing and distribution cost.
20. **Extraction rate for super maize meal:** Is the ratio of chop: maize meal after manufacturing.
21. **Average cost of maize (mill door price):** Extraction rate/total super maize meal cost.
22. **Miller to retail margin:** Average monthly retail price (5 kg bag) minus the average cost of maize (mill door price).
23. **Average monthly retail price (5 kg & 12.5 kg bag):** A weighted price (30:70) between a 5 kg bag and a 12.5 kg bag was calculated.

Annexure 2:
Methodology on the calculation of wheat to bread value chain

1. The **farm gate price** (also known as the producer price) is derived from:

   Average SAFEX spot price for wheat (2010/11) lagged by four months.

   Minus

   Average location differential (6)

   Minus

   Average storing cost for farmers (4)

   Minus

   Average handling, grading, procurement fee and 1% physical loss fee (3)

   Minus

   Transport cost: farm gate to silo (2)

2. **Transport cost, farm gate to silo:** Was increased with the CPI from 2010. The net result represents R1.14/km/ton wheat for an average of a trip of 20 km to the silo and 20 km back (Braun, 2010).
3. **Average handling, grading, procurement fee and 1% physical loss fee:** Was calculated as an average on the physical cost for seven silo owners and a R35 per ton procurement fee and a 1% physical loss fee on the SAFEX-derived price.
4. **Average storage cost for the farmer:** Was calculated as a weighted average for one third stored for 0 days, one third stored for 60 days at an average daily tariff and one third stored on the yearly tariff. The above calculation is based on opinion from industry leaders.
5. **SAFEX-derived price for the producer:** Was calculated as follows:

   Average SAFEX spot price for wheat (2010) lagged with four months
   Minus
   Average SAFEX differential
6. **Average location differential** was calculated as an average of all the transport differentials for 2010 as published by the Johannesburg Stock Exchange's Agricultural Product Division of the future exchange market (SAFEX) for all registered silos handling wheat.
7. **Average SAFEX spot price for wheat (2010) lagged with four months** is an average for all the trading days from 1 October 2010 to 30 September 2011. Statistical testing proved that the level of correlation between the producer price and the consumer price is the highest when the producer price is lagged by four months. This implies that it takes four months from the moment the miller buys the wheat until it appears on the shelf of the retailer.
8. **Storage and handling cost:** cost to the miller is based on opinions from industry players and is calculated as daily tariff times 120 days storage.
9. **Transport costs: silo to mill door**

   It is the opinion of industry players that the bigger millers are very close to urban areas. Therefore their transport costs were calculated as 80% of the transport differential.
10. **Income from sale of bran**

    The income from the sale of bran is based on an average of 80% of the yellow maize price.
11. **Mill door price:** Was calculated as follows:

    Average derived price for the seller/buyer at the silo
    Plus
    Storage and handling costs: cost to miller
    Plus
    Transport costs: silo to mill door
    Minus
    Income from sale of bran
12. **Mill site cost:** The fixed and variable cost of manufacturing is based on opinions from the industry. The mill site cost is the sum of the production cost, packing cost, packing material cost and losses.
13. **Total mill site cost:** Total mill site cost is distribution cost plus mill site cost.
14. **Fixed capital cost:** This cost is based on the opinion of industry players.
15. **Floating capital cost:** This cost is based on the opinion of industry players.

16. **Total manufacturing and distribution cost:** This cost is the sum of all the manufacturing costs.
17. **Total wheat flour cost for white bread:** This is the total manufacturing and distribution cost.
18. Average extraction rate of flour is the ratio of bran:flour after manufacturing.
19. **Total cost of white bread flour:** Total wheat flour cost, rand/ton.
20. **Extraction rate of white bread:** This is the rate for two different scenarios of a loaf of bread with 420g flour used and a bread of 508g flour used.
21. **Cost of flour per loaf:** Total cost of white bread flour/ extraction rate of white bread flour.
22. **Packaging:** Average cost of between R0.29 and R0.32/loaf based on the opinion of industry players.
23. **Other raw material:** Average cost of between R0.44 and R0.48/loaf based on the opinion of industry players.
24. **Production and maintenance:** Average cost of between R0.88 and R0.95/loaf based on the opinion of industry players.
25. **Distribution:** Average cost of between R1.10 and R1.21/loaf based on the opinion of industry players.
26. **Overheads:** Average cost of between R0.65 to R0.71/loaf based on the opinion of industry players.
27. **Cost of producing white bread:** Summation of cost of flour per loaf + packaging + other raw material production & maintenance + distribution + overheads.
28. **Baker's and miller's margin:** Wholesale price minus cost of producing bread.
29. **Wholesale price:** Retail purchase price minus rebates, losses and returns.
30. **Rebates, losses and returns:** Are calculated as an estimate of 11% of the retailers purchase price.
31. **Retailers purchase price:** Retail price minus retail margin.
32. **Retailer's margin:** Retailers margin is calculated as an estimate of 14% of the retailers purchase price.
33. **White/brown bread retail price (excluding VAT):** White/brown bread retail price (including VAT):/1 + (VAT).
34. **VAT (14%):** Governmental legislation of 14% value-added tax on white bread and 0% on brown bread.
35. **White/brown bread retail price (including VAT):** Average retail price for 2009 monitored by Stats SA and published in the Food Price Monitor of the NAMC.
36. Margin between selling price and cost of producing a loaf of white bread: White/brown bread retail price (including VAT) minus cost of producing white bread.

Annexure 3:
South African Living Standards Measures

LSM 1 (2.1%)	LSM 2 (5.7%)	LSM 3 (6.5%)	LSM 4 (13.1%)	LSM 5 (16.9%)	LSM 6 (21%)
DEMOGRAPHICS					
Male and female 15–24 and 50+ Primary school completed Small urban/rural Traditional hut R1 363 average household income per month	Female 15–24 and 50+ Some high school Small urban/rural Squatter hut shack, matchbox and traditional hut R1 929 average household income per month	Female 15–24 and 50+ Some high school Small urban/rural Squatter hut shack, matchbox and traditional hut R2 258 average household income per month	Male and female 15–34 and 50+ Some high school Small urban/rural Squatter hut shack, matchbox and traditional hut R3 138 average household income per month	Male 15–49 Some high school Small urban/rural R4 165 average household income per month	Male 25–49 Up to matric and higher Large urban R6 322 average household income per month
MEDIA					
Radio a major channel of media communication; mainly African Language Services (ALS)-Umhlobo Wenene FM, Ukhozi FM and community	Radio: Commercial, mainly ALS-Ukhozi FM, Umhlobo Wenene FM	Radio: Mainly ALS stations, Ukhozi FM, Umhlobo Wenene FM TV: SABC 1	Radio: Commercial, mainly ALS, Ga-gasi, Motsweding, Ukhozi, Umhlobo Wenene FM, Community Radio TV: SABC 1	Radio: Commercial, mainly ALS stations, Lesedi FM, Motsweding FM, Ukhozi FM, community radio TV: SABC 1,2,3, e.tv Daily newspapers	Wide range of commercial and community radio TV: SABC 1,2,3, e.tv, Top TV, Community TV All print Outdoor
GENERAL					
Minimal access to services Minimal ownership of durables, except radio sets Mzansi bank account Activities: minimal participation in activities, singing	Communal access to water Minimal ownership of durables, except radio sets and stoves Mzansi bank account Activities: minimal participation in activities, singing	Electricity, water on plot or communal Minimal ownership of durables, except radio sets and stoves Mzansi bank account Activities – singing	Electricity, water on plot or communal, non-flush toilet TV sets, electric hotplates Mzansi bank account Activities – attend gatherings, go to night clubs	Electricity, water, flush toilet outside / communal TV sets, hi-fi/radio set, stove, fridge Mzansi accounts Activities: take-away in past four weeks, bake for pleasure, go to night clubs, attend gatherings, buy lottery tickets	Electricity, water in home, flush toilet in home Ownership of a number of durables plus cell phone Savings and Mzansi accounts Activities: hire DVDs, go to night clubs, take-away in the past four weeks, attend gatherings, buy lottery tickets.
LSM 7 LOW (4.9%)	**LSM 7 HIGH (5.3%)**	**SM 8 LOW (4.3%)**	**LSM 8 HIGH (3.9%)**	**LSM 8 HIGH (3.9%)**	**LSM 9 LOW (4.6%)**
DEMOGRAPHICS					
Female 25–49 Matric and higher Urban R9 320 average household income per month	Male 25–49 Matric and higher Urban R11 263 average household income per month	Female 35+ Matric and higher Urban R13 210 average household income per month	Male 35+ Matric and higher Urban R14 882 average household income per month	Male 35+ Matric and higher Urban R14 882 average household income per month	Female 35+ Matric and higher Urban R17 988 average household income per month

MEDIA					
Wide range of commercial and community radio TV: SABC 1,2,3, e.tv, DStv, Top TV, Community TV All print Accessed internet past seven days Cinema and outdoor	Wide range of commercial and community radio TV: SABC 1,2,3, e.tv, M-Net, DStv, Top TV, Community TV All print Accessed internet past seven days Cinema and outdoor	Wide range of commercial and community radio TV: SABC 1,2,3, e.tv, M-Net, DStv, Top TV, Community TV All print Accessed internet past seven days Cinema and outdoor	Wide range of commercial and community radio TV: SABC 2,3, e.tv, M-Net, DStv, Top TV, Community TV All print Accessed internet past seven days Cinema and outdoor	Wide range of commercial and community radio TV: SABC 2,3, e.tv, M-Net, DStv, Top TV, Community TV All print Accessed internet past seven days Cinema and outdoor	Wide range of commercial and community radio TV: SABC 2,3, e.tv, M-Net, DStv, Top TV, Community TV All print Accessed internet past seven days Cinema and outdoor
GENERAL					
Full access to services Savings accounts Increased ownership of durables plus DVDs and motor vehicles Participation in all activities	Full access to services, including cheque and savings accounts Increased ownership of durables plus DVDs and motor vehicles Participation in all activities	Full access to services and bank accounts Full ownership of durables, including PC Increased participation in activities	Full access to services and bank accounts Full ownership of durables, including PC Increased participation in activities	Full access to services and bank accounts Full ownership of durables, including PC Increased participation in activities	Full access to services and bank accounts Full ownership of durables Increased participation in activities, excluding stokvel meetings
LSM 9 LOW (4.6%)	**LSM 9 HIGH (4.6%)**	**LSM 10 LOW (3.3%)**	**LSM 10 HIGH (3.1%)**		
DEMOGRAPHICS					
Female 35+ Matric and higher Urban R17 988 average household income per month	Male 35+ Matric and higher Urban R21 328 average household income per month	Male 35+ Matric and higher Urban R26 706 average household income per month	Male 35+ Matric and higher Urban R32 521 average household income per month		
MEDIA					
Wide range of commercial and community radio TV: SABC 2,3, e.tv, M-Net, DStv, Top TV, Community TV All print Accessed internet past seven days Cinema and outdoor	Wide range of commercial radio TV: SABC 2,3, e.tv, M-Net, DStv, Top TV, Community TV All print Accessed internet past seven days Cinema and outdoor	Wide range of commercial radio TV: SABC 3, M-Net, DStv, Top TV, Community TV All print Accessed internet past 7 days Cinema and outdoor	Wide range of commercial radio TV: M-Net, DStv, Community TV All print Accessed internet past seven days Cinema and outdoor		
GENERAL					
Full access to services and bank accounts Full ownership of durables Increased participation in activities, excluding stokvel meetings	Full access to services and bank accounts Full ownership of durables Increased participation in activities, excluding stokvel meetings	Full access to services and bank accounts Full ownership of durables Increased participation in activities, excluding stokvel meetings	Full access to services and bank accounts Full ownership of durables Increased participation in activities, excluding stokvel meetings		