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DEPARTMENT: FINANCE
MPUMALANGA PROVINCIAL GOVERNMENT

ECONOMIC RESEARCH REPORT

NO 4 – MARCH 2010

MPUMALANGA
A Pioneering Spirit

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Department: Finance
MPUMALANGA PROVINCIAL GOVERNMENT

AN ANALYSIS OF MPUMALANGA'S INFLATION

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MPUMALANGA PROVINCIAL GOVERNMENT

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MPUMALANGA

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1. INTRODUCTION

Research suggests that the variability of inflation tends to have a direct impact on economic growth and that the level of inflation tends to have an indirect impact on growth via its effect on investment. Mpumalanga's inflation rate consistently exceeded the national inflation rate over the period January 2003 to January 2010.

It is relevant to note that policy makers in Mpumalanga cannot directly influence inflation as it is the South African Reserve Bank (SARB) mandate. However, as inflation is an impediment to provincial economic development, it is important to understand the inflation scenario in Mpumalanga. Shedding light on inflation in Mpumalanga should strengthen interventions against the twin economic challenges of poverty and unemployment.

Therefore, in order to place Mpumalanga on a sound growth and integrated development trajectory it is therefore important to understand inflation and its driving forces in a provincial context by analysing inflation in Mpumalanga. The main objective of the study is to analyse the inflation rate of Mpumalanga by comparing it with that of South Africa and the other eight provinces. The analysis will focus on establishing the:

- measurement of inflation in South Africa and Mpumalanga;
- the costs associated with a relatively high inflation environment;
- level of inflation in Mpumalanga compared with South Africa, and
- the main drivers of inflation in Mpumalanga compared with South Africa.

2. INFLATION AND ITS CAUSES

Inflation is best described as a sustained rise in the general level of prices – ***sustained, rise*** and ***general level*** being the operative words. Inflation therefore refers to a process of rising prices rather than to a state of high prices. Stated differently, inflation results in a continued decline in the quantity of goods and services that can be bought with a fixed amount of money, or, in other words, a decline in the purchasing power of money (Smal, 1998).

There are many factors that can cause inflation. For example, inflation can happen when governments print an excess of money to deal with a crisis. As a result, prices end up rising at an extremely high speed to keep up with the currency surplus. This is called demand-pull, in which prices are forced upwards because of a high domestic demand. During the 2010 World Cup it is expected that demand-pull inflation will be witnessed as the consumer market will be bolstered by thousands of foreign visitors. The increase in market participants should pull prices higher because of an increase in the level and size of demand.

Another common cause of inflation is a rise in production costs, which leads to an increase in the price of the final product. For example, if raw materials increase in price, this leads to the cost of production increasing which in turn leads to a company increasing prices to maintain steady profits. For example, as a result of the increase in the price of diesel, pesticides and fertilizer the price of corn will increase which will, in turn, translate in a rising price of bread. Rising labour costs can also lead to inflation. As workers demand wage increases, companies usually choose to pass on those costs to their customers.

Inflation can also be caused by international developments, for example, lending and national debts. As nations borrow money from the international market, they have to deal with interests, which in the end cause prices to rise as a way of keeping up with their debts. According to Hamadziripi (2008), the pressures which are primarily responsible for the rising inflation target range are largely exogenous, emanating from oil and food price shocks, which have posed a challenge to many central banks around the world. A deep drop of the exchange rate can also result in inflation, as governments will have to deal with differences in the import/export level.

3. MEASUREMENT OF INFLATION IN SOUTH AFRICA

Statistics South Africa (Stats SA) sends out approximately 100 000 questionnaires monthly to approximately 2 200 outlets and approximately 100 000 prices are processed on a monthly basis. Stats SA uses two selection techniques in its sampling of CPI data, namely:

- Item selection – Stats SA has used two criteria to decide what items should be included in the list. The first is the estimated total expenditure on a product. All those goods and services on which expenditure exceeds a certain percentage of the total amount spent by the average household are candidates for inclusion in the basket. The second is based on the percentage of households purchasing the product. An item is a candidate for inclusion in the basket if the proportion of households purchasing it exceeds a certain percentage.
- Outlet selection – the number and types of outlets are selected using purposive sampling. Areas with the highest weights receive the highest product allocation.

The overall CPI is calculated as an aggregate of consumer price indices for the nine provinces in South Africa. In each province prices are monitored in retail and service outlets in two broad geographical areas. These two geographical areas are defined as either main metropolitan or other urban areas within each province. There is at least one main metropolitan area in each province, although two main metropolitan areas were identified in four of the nine provinces. The other urban areas in each of the provinces consist of four to six urban areas throughout the province.

The types of items selected for pricing are goods and services purchased by the reference population in the weighting base period. These items are determined mainly from the Income and Expenditure of Households Survey (IES), conducted every five years by Stats SA. In 2005/6 Stats SA conducted its latest IES using a sample of 24 000 dwelling units covering the whole country.

Items excluded are income taxes, contributions to pension plans, consumer savings and investments, gambling and expenditure on illegal activities. There are 12 main groups and approximately 400 specifications in the fixed basket. The target population includes all South African households living in urban areas, which represent approximately 84 per cent of private consumption expenditure in South Africa.

4. HISTORY OF INFLATION MEASUREMENT IN SOUTH AFRICA

The South African CPI originated in 1917, covering large urban areas only. Since 1997, smaller urban areas were included. All prices of goods and services were collected by the head office of Statistics South Africa (Stats SA) using mainly the post. A direct collection methodology, that entailed collecting prices on goods directly by visiting retail outlets, was piloted in July 2004. This direct collection methodology was rolled out region by region. Since June 2006, the CPI has been compiled using the prices of goods from the direct collection methodology in the metropolitan (primary) areas and in the other urban (secondary) areas, respectively.

In February 2000 it was announced that formal inflation targeting would also be adopted in South Africa as the monetary policy framework. It was decided to specify the target in terms of an annual average rate of increase in the CPIX (CPI excluding interest rates on mortgage bonds) for the calendar year 2002. A multi-year target approach was followed by specifying the target as an average annual rate of increase of between 3 and 6 per cent in the CPIX for the years 2002 and 2003 and an increase of between 3 and 5 per cent for the years 2004 and 2005. When it became clear that the inflation target would be missed for a fairly protracted period due to a sharp depreciation in the external value of the rand and a number of other exogenous shocks, the target range for 2005 was increased from 3 to 5 per cent to 3 to 6 per cent.

From January 2009 the CPI for all urban areas replaced CPIX as the inflation target measure. The CPI for all urban areas is known as the headline inflation measure and is compiled from all the primary and secondary urban areas in which CPI data is collected. This change results from Stats SA's decision to bring the South African CPI in line with international standards by dropping interest rates on mortgage bonds as the indicator of changes in housing costs. Stats SA now use a measure of Owners' Equivalent Rent which is based on rentals paid for similar dwellings as those found in the owner-occupier market. A survey of rentals, conducted by Stats SA, forms the source for this item.

5. COST OF INFLATION

The cost of inflation can be grouped into four broad charges, namely uncertainty, shoe-leather costs, redistributional costs and economic costs (Smal, 1998). Briefly, "shoe-leather" costs refer to wasted resources because of frequent visits to the bank to withdraw money, or in modern phrasing, unnecessary cost incurred by the implementation of costly cash management systems. The other three costs, that have more relevance for the situation in Mpumalanga, will be described briefly.

5.1 Uncertainty

Decisions to buy or sell and to borrow or invest are based on both current and future prices, and inflation creates confusion about the information that these prices convey. According to Smal (1998), there can be overinvestment in some production sectors relative to the underlying demand and underinvestment in others with the resultant need for adjustment. Logically, there can also be overinvestment or underinvestment in provinces relative to the underlying uncertainty.

A considerable body of literature has accumulated concerning the relation between the level of inflation and its variability. Golob (1993) surveyed the empirical literature on inflation and uncertainty and concluded that these studies have found that both survey and mathematical estimates of uncertainty are positively related to the level of inflation, i.e. the higher the inflation, the greater the uncertainty. Therefore, a province with relatively high inflation compared to the norm should present potential investors with more uncertainty than another province with relatively low inflation.

5.2 Redistributional costs

Redistributional costs arise because not all individuals are able to fully hedge themselves against inflation or because nominal interest rates do not fully adjust to incorporate inflation. Inflation-induced redistribution is costly because it induces changes in behaviour as individuals reallocate resources to avoid the effects of inflation, that is, time and resources are diverted away from their initial use to less productive activities in an attempt to avoid the effects of inflation on income. Because resources are then used in activities in which they would not otherwise be used, except for the existence of inflation, efficiency losses are incurred.

5.3 Economic costs

According to Smal (1998) economic costs arise because inflation may cause people to change their investment or saving behaviour, with the result that the economy's growth potential is reduced. Variable inflation will induce risk-averse workers to negotiate a nominal wage that incorporates a premium to cover the eventuality that the realised price level may be higher than the expected price level. Increasing uncertainty about inflation, which is closely related to the increasing variability of inflation, will therefore push up the average nominal wage rate and hence the real wage, which may result in an upward wage-price spiral.

Higher inflation than in trading partner and competitor countries normally leads to a one-sided adjustment in the exchange rate of a currency that can make a country vulnerable to speculative attacks. A high inflation rate also erodes a country's international competitiveness over sustained periods and attempting to reduce deeply entrenched inflation through interest rates can, in turn, erode competitiveness further.

Businesses need to account for the gradual deterioration of equipment and make provision for its replacement in the future. Inflation distorts this process when accounting systems operate on a historical cost basis, and not on replacement cost. Inflation significantly distorts the value of depreciation allowances, increases the effective tax rate on profits and in this way significantly penalises investment.

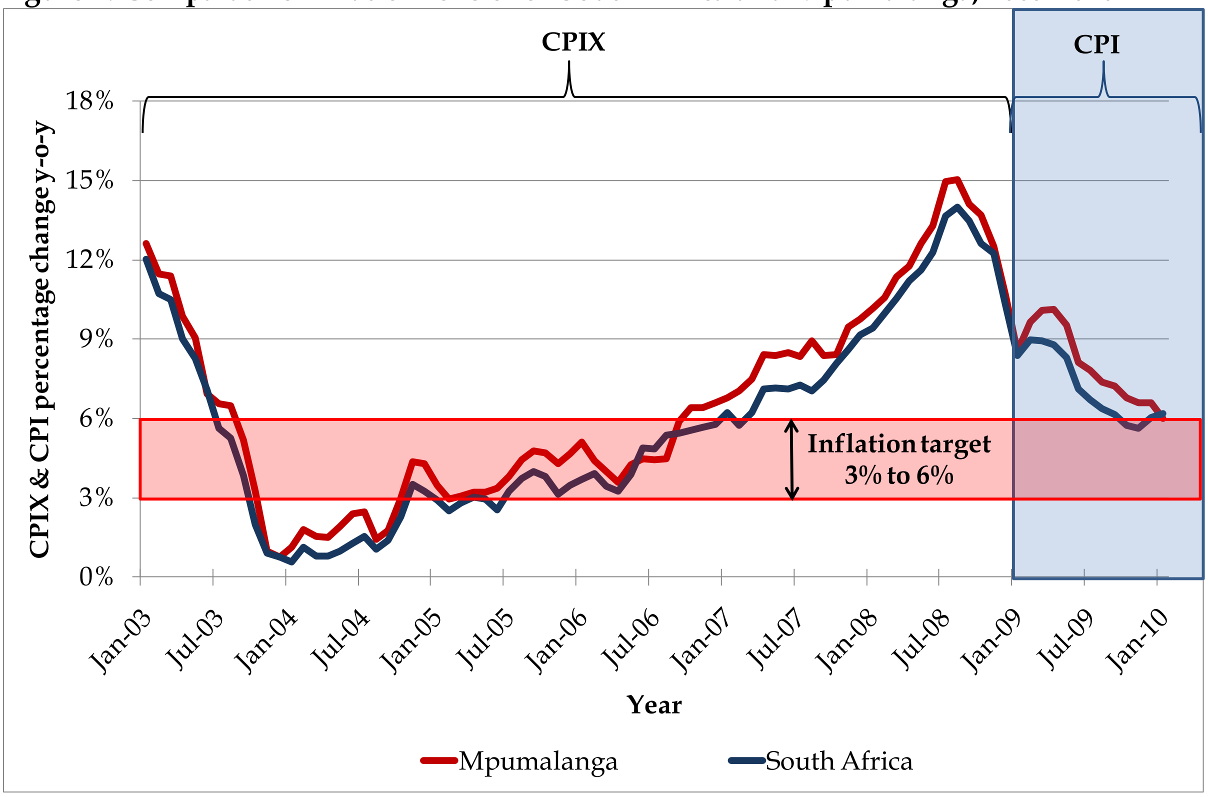
In the short run, inflation could lead to a decline in the real return on saving if it is not compensated fully by nominal interest rates. The taxation of that part of interest payments which is intended to compensate for the erosion of purchasing power by inflation further lowers the real return on saving. In terms of investment, some factors such as increased uncertainty, reduced competitiveness and higher interest rates, are likely to reduce the level of investment. Inflation tends to reduce investment in productive assets (such as plant and equipment) and redirects it to other forms of investment (inflation hedge assets such as property or equity), leading to a slowdown in economic growth.

6. LEVEL OF INFLATION IN MPUMALANGA

Over the last 8 years, inflation targeting by the Reserve Bank made use of two inflation indicators namely CPIX and CPI. The CPIX-period spanned from January 2002 to December 2008 (base year 2000 = 100) with the CPI-period following from January 2009 (base year 2008 = 100). Therefore both sets of data were used to analyse the level of inflation in South Africa, Mpumalanga and the other provinces.

The inflation rate (CPIX and CPI) in Mpumalanga was consistently higher than the national inflation rate over the period January 2003 to January 2010. The percentage change in CPIX and CPI measured over the entire period is displayed in Figure 1. At its highest, the rate of inflation in Mpumalanga was 15.0 per cent in August 2008 and 1.0 per cent at its lowest in November 2003. In both instances, the provincial inflation exceeded that of South Africa at 14.0 per cent and 0.6 per cent, respectively. At the latest measurement, January 2010, inflation in Mpumalanga (6.0 per cent) dipped below that of South Africa (6.2 per cent) for the first time since August 2006.

Figure 1: Comparative inflation levels for South Africa and Mpumalanga, 2003-2010



Source: Statistics South Africa, 2010

Headline consumer price inflation in South Africa, exceeded the upper band of the inflation target range (3 to 6 per cent) for 30 consecutive months commencing in March 2007. Over the total period from January 2003 to January 2010, national inflation exceeded the upper band in 38 out of 85 monthly measurements (Figure 1). Correspondingly, inflation in Mpumalanga also strayed above the upper band for 39 consecutive months and in total for 47 months or some 55 per cent of the total monthly measurements.

It is evident from Table 1, that among all provinces, Mpumalanga recorded the highest inflation rate over the entire CPIX period (6.5 per cent) as well as over the CPI period (8.0 per cent). During the CPIX-period North-West (15.6 per cent) recorded the single highest inflation measurement, followed by Mpumalanga (15.0 per cent). KwaZulu-Natal recorded the single highest inflation measurement of 10.4 per cent during the CPI-period, with Mpumalanga again in second position with a recorded high of 10.1 per cent.

Table 1: Inflation in South Africa and provinces - average and highs, 2003-2010

Indicator	SA	WC	EC	NC	FS	KZN	NW	GP	MP	LP
CPIX mean '03-'08	5.8%	5.8%	5.8%	6.2%	5.4%	5.7%	6.1%	5.7%	6.5%	5.7%
CPI mean '09-'10	7.2%	7.1%	7.5%	6.9%	7.1%	7.4%	7.1%	6.9%	8.0%	6.7%
CPIX high '03-'08	14.0%	14.1%	14.6%	14.7%	13.4%	14.2%	15.6%	13.2%	15.0%	14.2%
CPI high '09-'10	9.0%	8.3%	9.9%	8.7%	8.6%	10.4%	9.7%	8.3%	10.1%	9.4%

Source: Statistics South Africa, 2010

Not only has the inflation rate in Mpumalanga consistently exceeded the national level, but it was also the province that exceeded the national level the most consistently since 2003 (Table 2). During the CPIX-period of measurement up to December 2008, the inflation rate in Mpumalanga was lower than the national figure in only 4 of the 72 months recorded. In the subsequent CPI-period, the provincial inflation rate was lower than the national level only in the very latest reading for January 2010 – once in 13 readings.

The upper band of the inflation target range was exceeded by all provinces for a lengthy period from mid-2003 towards the end of 2009. As mentioned earlier, inflation in Mpumalanga exceeded the upper band of 6 per cent for 39 consecutive months and for 47 months in total during the entire period under review. In both instances, did Mpumalanga occupy the undesirable position of worst performing province followed by the Free State with 37 consecutive months and 43 total months, respectively.

Table 2: Provincial inflation exceeding national level and inflation target, 2003-2010

Indicator	WC	EC	NC	FS	KZN	NW	GP	MP	LP
CPIX – months > SA	46	39	50	23	38	50	34	68	37
CPI – months > SA	7	9	1	4	6	8	6	12	5
Consecutive months > 6%	32	30	35	37	35	29	30	39	35
Total months > 6%	40	37	42	43	41	36	38	47	40

Source: Statistics South Africa, 2010

Over the CPI-period from January 2009 to January 2010, Witbank and Nelspruit registered the highest average inflation rate of 8.3 per cent. Not only was it higher than the provincial figure of 8.0 per cent over the same period, but it was also the highest inflation rate for any urban area in South Africa as well as being the only urban area, nationally, in excess of 8 per cent. Rustenburg/Klerksdorp was second with 7.7 per cent whilst Polokwane (6.4 per cent) registered the lowest rate among urban areas in the country.

7. DETERMINANTS OF INFLATION IN MPUMALANGA

The CPI-period from January 2009 to January 2010 (base year 2008 = 100) was used to distinguish the main drivers of inflation in South Africa, Mpumalanga and other provinces.

The items selected for CPI measurement are determined mainly from the Income and Expenditure of Households Survey (IES), conducted by Stats SA. The types of items selected for pricing are goods and services purchased by the reference population in the weighting base period. These items are then grouped together in 28 product groups and then aggregated further into 12 group indices. The group indices were analysed first to determine the major inflation determining group indices after which the product indices were analysed to yield a similar result within the product indices.

7.1 Group indices

According to the weightings calculated by Stats SA, it is apparent that four of the group indices; food and non-alcoholic beverages, housing and utilities, transport and miscellaneous goods and services, combine to contribute approximately 70 per cent to all items for South Africa and its nine provinces (Table 3). Therefore price changes in the four dominant group indices are more likely to result in major changes in the regional CPI, than changes in the smaller 8 group indices. In other words, approximately 70 per cent of inflation and changes to inflation can be attributed to the four dominant group indices noted above.

For example, a 104.6 per cent increase in Mpumalanga's health group index will result in the same impact on total inflation as a 6 per cent price increase in Mpumalanga food and non-alcoholic group index. The four dominant group indices can therefore be regarded as the drivers or main determinants of changes to inflation, bearing in mind that the smaller group indices are still significant to its related industries and do contribute to total inflation.

Table 3: CPI group indices weightings for South Africa and provinces, 2010

Descriptions of group indices	SA	WC	EC	NC	FS	KZN	NW	GP	MP	LP
Food and non-alcoholic beverages	18.28	14.40	22.67	20.51	17.27	21.44	19.75	15.49	**21.80**	27.26
Alcoholic beverages and tobacco	5.56	6.49	6.27	7.30	4.89	4.57	5.96	5.54	4.38	4.79
Clothing and footwear	4.42	3.18	4.91	5.01	5.17	4.97	4.60	4.18	4.98	5.81
Housing and utilities	21.04	26.09	18.58	17.65	17.71	20.38	17.34	22.27	**15.53**	17.32
Household contents and services	6.14	4.73	6.29	7.39	7.38	6.43	7.18	5.70	8.10	7.63
Health	1.48	1.29	1.36	1.41	2.07	1.53	1.45	1.58	1.25	1.26
Transport	17.79	19.59	16.57	16.38	19.06	16.45	15.59	18.57	**19.13**	12.65
Communication	3.13	3.35	2.84	3.08	3.21	3.54	3.25	2.97	2.96	2.73
Recreation and culture	3.93	4.68	2.87	3.73	3.93	3.65	3.46	4.21	3.79	3.08
Education	2.15	1.72	1.77	1.05	2.26	2.36	3.25	2.18	2.09	2.74
Restaurants and hotels	2.78	3.01	2.29	3.25	3.18	2.35	2.27	2.99	1.95	3.57
Miscellaneous goods and services	13.30	11.47	13.58	13.24	13.87	12.33	15.90	14.32	**14.04**	11.16
All items	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Statistics South Africa, 2010

Table 4 illustrates what each of the group indices contributed to the provincial inflation rate. The contribution was calculated by multiplying the weighting of a specific group index with the percentage change for that group as supplied by Stats SA. The impact of the four dominant group indices in Mpumalanga can be clearly observed. For example, the four dominant group indices combined to contribute 6.5 percentage points, or some 76.5 per cent, of the 8.5 per cent inflation rate in January 2009. It is evident that the four dominant group indices were the only indices to contribute more than 1 percentage point on its own to provincial inflation in any of the months displayed (indicated in red).

Table 4: Contribution of group indices to Mpumalanga's inflation rate, 2009-2010

Group index	Weight	Percentage point contribution to provincial inflation				
		Jan-09	Apr-09	Jul-09	Oct-09	Jan-10
Food & non-alcoholic beverages	21.80	**3.1%**	**3.3%**	**1.8%**	**1.2%**	0.6%
Alcoholic beverages & tobacco	4.38	0.4%	0.6%	0.7%	0.7%	0.6%
Clothing & footwear	4.98	0.2%	0.3%	0.4%	0.5%	0.4%
Housing and utilities	15.53	**1.4%**	**1.2%**	**1.5%**	**1.4%**	**1.4%**
Household contents & services	8.10	0.6%	0.6%	0.5%	0.3%	0.1%
Health	1.25	0.1%	0.2%	0.1%	0.1%	0.1%
Transport	19.13	0.4%	**1.1%**	0.3%	0.5%	**1.1%**
Communication	2.96	0.0%	0.0%	-0.1%	0.0%	-0.1%
Recreation & culture	3.79	0.2%	0.5%	0.5%	0.4%	0.3%
Education	2.09	0.2%	0.2%	0.2%	0.2%	0.2%
Restaurants & hotels	1.95	0.3%	0.3%	0.2%	0.2%	0.2%
Miscellaneous goods & services	14.04	**1.6%**	**1.8%**	**1.8%**	**1.5%**	**1.2%**
Total	**100.00**	**8.5%**	**10.1%**	**7.9%**	**6.8%**	**6.0%**

Source: Statistics South Africa, 2010

As a matter of interest, the food and non-alcoholic beverages group index was the major determinant from January 2009 to June 2009 among the group of main drivers. Miscellaneous goods and services followed the former from July 2009 to November 2009 and over the last two observation periods, December 2009 and January 2010, the housing and utilities group index stepped up as the lead determinant of inflation in Mpumalanga.

However, the fact that Mpumalanga consistently exhibited the highest inflation rate can not merely be explained by studying differences in the weightings of group indices, especially the four dominant indices, between provinces. According to Table 3, Mpumalanga does not exhibit the highest weighting in any of the four dominant product groups and only ranks 5th highest, behind the Western Cape, when the weightings of the four are combined. Therefore should price increases in the four dominant group indices be uniform across all provinces one might naturally expect a lower resultant increase in total inflation in Mpumalanga than the Western Cape.

Nevertheless, the majority of price increases across provinces are not uniform except, to a certain degree, that of administered prices such as electricity and petrol. When one considers the provincial inflation rates of the four dominant group indices in comparison with South Africa, one gets closer to the core of the inflation puzzle in Mpumalanga. Table 5 presents the inflation rates of provinces in the four dominant group indices over the period January 2009 to January 2010 (CPI-period).

Table 5: Inflation mean of dominant group indices, South Africa & provinces, 2009-2010

Region	Food & non-alcoholic beverages	Housing & utilities	Transport	Miscellaneous goods & services
WC	**10.2%**	**8.6%**	-1.2%	10.1%
EC	**9.6%**	**8.9%**	-1.4%	**13.3%**
NC	**9.4%**	**8.4%**	-2.0%	10.2%
FS	7.1%	**9.6%**	**0.5%**	9.6%
KZN	**9.3%**	7.9%	**1.6%**	**12.0%**
NW	8.1%	**10.1%**	-2.0%	11.1%
GP	8.7%	6.8%	**0.3%**	**11.8%**
MP	**9.1%**	**8.8%**	**3.7%**	**11.8%**
LP	7.0%	7.9%	0.0%	11.2%
SA	**9.0%**	**8.0%**	**0.1%**	**11.5%**

Source: Statistics South Africa, 2010

Although Mpumalanga exhibited the highest inflation rate in only one of the dominant group indices (transport at 3.7 per cent) it is evident that the province was the only province to have exceeded the national rate in all four group indices (indicated in red). The other provinces, with the exception of Limpopo, exceeded the national rate in only two of the four group indices. In other words, Mpumalanga's elevated inflation state is a result of higher prices across a wider spectrum of inflation determining indices than just merely the largest increases in one or two of the indices.

By combining the weights of the group indices with the inflation mean presented above, the combined percentage point contribution by the four chief inflation determining group indices to the total inflation rate are obtained. From Table 6 it is apparent that Mpumalanga was the only province to have exceeded the national percentage point contribution in three of the four group indices (indicated in red). Mpumalanga recorded the highest combined contribution of 5.7 percentage points. The significance of the result is that the four major group indices combined to contribute 5.7 percentage points of the 8.0 per cent inflation mean for the CPI-period.

Table 6: Contribution of dominant group indices to inflation in South Africa & provinces, 2009-2010

Region	Food & non-alcoholic beverages	Housing & utilities	Transport	Miscellaneous goods & services	Combined percentage point
WC	1.5%	**2.2%**	-0.2%	1.2%	**4.6**
EC	**2.2%**	1.7%	-0.2%	**1.8%**	**5.4**
NC	**1.9%**	1.5%	-0.3%	1.3%	**4.4**
FS	1.2%	1.7%	**0.1%**	1.3%	**4.4**
KZN	**2.0%**	1.6%	**0.3%**	1.5%	**5.3**
NW	1.6%	1.7%	-0.3%	**1.8%**	**4.8**
GP	1.3%	1.5%	**0.1%**	**1.7%**	**4.6**
MP	**2.0%**	1.4%	**0.7%**	**1.7%**	**5.7**
LP	**1.9%**	1.4%	0.0%	1.2%	**4.5**
SA	**1.6%**	**1.7%**	**0.0%**	**1.5%**	**4.9**

Source: Statistics South Africa, 2010

It was only in the transport group index that Mpumalanga recorded the highest percentage point contribution among the nine provinces. This underscores the statement that Mpumalanga's elevated inflation state is a result of higher prices across a broader range of inflation determining indices than just merely the largest increases in one or two of the indices.

7.2 Product indices

The group indices are made up of, or are further disaggregated into, product indices. Just as the dominant group indices act as the main determinants of inflation movements, so certain product indices carry larger weights and act as main determinants of group index movements. Table 7 notes the product indices of group indices and its respective weightings. According to the weights calculated by Stats SA, there are four major product indices in general namely food, owners' equivalent rent, purchase of vehicles and insurance. In point of fact, the four product groups are all from the dominant group indices. The four product groups can therefore be regarded as the main determinants of movements in the dominant group indices.

Table 7: Product index weightings of group indices for South Africa & provinces, 2010

Group index	Product index	Weight									
		SA	WC	EC	NC	FS	KZN	NW	GP	MP	LP
Food & non-alcoholic beverages		18.28	14.40	22.67	20.51	17.27	21.44	19.75	15.49	21.80	27.26
	Food	16.80	13.09	21.19	18.86	15.85	20.12	18.10	13.96	20.15	25.40
	Non-alcoholic beverages	*1.48*	1.31	1.48	1.65	1.42	1.32	1.65	1.53	1.65	1.86
Alcoholic beverages & tobacco		5.56	6.49	6.27	7.30	4.89	4.57	5.96	5.54	4.38	4.79
	Alcoholic beverages	3.31	3.70	3.59	3.05	2.37	2.79	3.71	3.54	2.42	3.06
	Tobacco	2.25	2.79	2.68	4.25	2.52	1.78	2.25	2.00	1.96	1.73
Clothing & footwear		4.42	3.18	4.91	5.01	5.17	4.97	4.60	4.18	4.98	5.81
	Clothing	3.13	2.31	3.43	3.71	3.62	3.51	3.29	2.90	3.57	4.18
	Footwear	1.29	0.87	1.48	1.30	1.55	1.46	1.31	1.28	1.41	1.63
Housing & utilities		21.04	26.09	18.58	17.65	17.71	20.38	17.34	22.27	15.53	17.32
	Actual rentals for housing	3.20	3.66	2.43	2.44	2.58	2.96	4.89	3.41	2.23	2.67
	Owners' equivalent rent	11.25	15.64	9.56	7.45	7.86	9.93	6.84	12.42	7.83	9.18
	Maintenance & repair	1.55	2.62	1.89	1.30	1.20	1.07	0.85	1.48	0.96	0.87
	Water & other services	2.86	2.26	1.84	3.51	3.21	3.95	2.06	3.48	1.96	1.29
	Electricity & other fuels	2.18	1.91	2.86	2.95	2.86	2.47	2.70	1.48	2.55	3.31
Household contents & services		6.14	4.73	6.29	7.39	7.38	6.43	7.18	5.70	8.10	7.63
	Furnishings, floor coverings & textiles	2.42	1.62	2.85	3.26	3.19	2.45	2.81	2.01	3.86	3.68
	Appliances, tableware & equipment	1.15	0.89	1.32	1.77	1.42	1.29	1.23	0.94	1.60	1.68
	Supplies & services	2.57	2.22	2.12	2.36	2.77	2.69	3.14	2.75	2.64	2.27
Health		1.48	1.29	1.36	1.41	2.07	1.53	1.45	1.58	1.25	1.26
Transport		17.79	19.59	16.57	16.38	19.06	16.45	15.59	18.57	19.13	12.65
	Purchase of vehicles	10.23	13.40	9.20	9.82	11.43	8.15	7.41	10.40	12.58	5.11
	Private transport operation	4.49	4.59	3.84	4.42	4.76	4.48	4.86	4.82	3.36	3.85
	Public transport	3.07	1.60	3.53	2.14	2.87	3.82	3.32	3.35	3.19	3.68
Communication		3.13	3.35	2.84	3.08	3.21	3.54	3.25	2.97	2.96	2.73
	Postal services & telecommunication services	2.76	3.11	2.36	2.65	2.77	3.11	2.87	2.68	2.39	2.07
	Telecommunication equipment	0.37	0.24	0.49	0.43	0.44	0.43	0.38	0.29	0.56	0.66
Recreation & culture		3.93	4.68	2.87	3.73	3.93	3.65	3.46	4.21	3.79	3.08
	Recreational equipment	2.12	2.56	1.63	2.31	2.22	2.03	1.96	2.02	2.40	1.96
	Recreational and cultural services	1.13	1.43	0.62	0.90	1.10	0.91	0.90	1.40	0.90	0.56
	Books, newspapers & stationary	0.68	0.69	0.62	0.52	0.61	0.71	0.60	0.79	0.49	0.56
Education		2.15	1.72	1.77	1.05	2.26	2.36	3.25	2.18	2.09	2.74
Restaurants & hotels		2.78	3.01	2.29	3.25	3.18	2.35	2.27	2.99	1.95	3.57
	Restaurants	1.91	2.27	1.79	2.51	2.31	1.21	1.61	1.97	1.27	2.77
	Hotels	0.87	0.74	0.50	0.74	0.87	1.14	0.66	1.02	0.68	0.80
Miscellaneous goods & services		13.30	11.47	13.58	13.24	13.87	12.33	15.90	14.32	14.04	11.16
	Personal care	2.16	2.20	1.81	2.26	2.27	1.83	2.11	2.41	2.06	2.13
	Insurance	7.21	6.29	6.64	6.75	7.56	5.80	8.31	8.65	7.49	4.65
	Financial services	1.26	0.95	1.47	1.30	1.04	1.20	2.88	1.09	1.80	1.02
	Other services	2.67	2.03	3.66	2.93	3.00	3.50	2.60	2.17	2.69	3.36

Source: Statistics South Africa, 2010

In the case of Mpumalanga, the product index of food is the main contributor to the food and non-alcoholic beverages group index with a share of 92.4 per cent. Likewise the purchase of vehicles product group (65.8 per cent), dominates the transport group index, whilst insurance (53.3 per cent) is the leading product group index among the miscellaneous goods and services group index. Price changes in these leading product indices are more likely to result in major changes in the group indices, than changes in the lesser product indices.

For instance, the product index of owners' equivalent rent dominates the group index of housing and utilities with a 50.4 per cent share of the group index weight. Therefore, a 24.8 per cent increase in Mpumalanga's electricity and other fuels product index will result in the same impact on the housing and utilities group index as an 8.1 per cent price increase in Mpumalanga owners' equivalent rent product index.

Table 8 illustrates what each of the product indices contributed to the provincial inflation rate. The contribution was calculated by multiplying the weighting of a specific product index with the percentage change as supplied by Stats SA. The impact of the four major product indices in Mpumalanga can be clearly observed. For example, the four dominant product indices combined to contribute 4.5 percentage points, or some 52.9 per cent, of the 8.5 per cent inflation rate in January 2009.

Table 8: Contribution of product indices to Mpumalanga's inflation rate, 2009-2010

Product index	Weight	Percentage point contribution to provincial inflation				
		Jan-09	Apr-09	Jul-09	Oct-09	Jan-10
Food	20.15	3.0%	3.1%	1.5%	1.0%	0.4%
Non-alcoholic beverages	1.65	0.1%	0.2%	0.3%	0.2%	0.2%
Alcoholic beverages	2.42	0.2%	0.2%	0.3%	0.2%	0.2%
Tobacco	1.96	0.3%	0.4%	0.4%	0.4%	0.4%
Clothing	3.57	0.1%	0.2%	0.3%	0.3%	0.3%
Footwear	1.41	0.1%	0.1%	0.1%	0.1%	0.1%
Actual rentals for housing	2.23	0.1%	0.1%	0.1%	0.1%	0.1%
Owners' equivalent rent	7.83	0.4%	0.3%	0.4%	0.3%	0.4%
Maintenance & repair	0.96	0.2%	0.2%	0.1%	0.0%	0.0%
Water & other services	1.96	0.1%	0.1%	0.2%	0.2%	0.2%
Electricity & other fuels	2.55	0.5%	0.5%	0.6%	0.6%	0.6%
Furnishings, floor covering & textiles	3.86	0.2%	0.1%	0.1%	0.0%	-0.1%
Appliances, tableware & equipment	1.60	0.1%	0.2%	0.2%	0.1%	0.1%
Supplies and services	2.64	0.3%	0.3%	0.3%	0.2%	0.2%
Purchase of vehicles	12.58	0.6%	0.8%	0.8%	0.7%	0.5%
Private transport operation	3.36	-0.4%	-0.3%	-0.6%	-0.4%	0.7%
Public transport	3.19	0.1%	0.6%	0.1%	0.1%	0.0%
Postal services & telecommunication services	2.39	0.0%	0.0%	0.0%	0.1%	0.1%
Telecommunication equipment	0.56	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Recreational equipment	2.40	0.2%	0.2%	0.2%	0.1%	0.0%

Recreational & cultural services	0.90	0.0%	0.2%	0.2%	0.2%	0.2%
Books, newspapers & stationery	0.49	0.1%	0.1%	0.0%	0.1%	0.0%
Restaurants	1.27	0.2%	0.2%	0.2%	0.1%	0.1%
Hotels	0.68	0.1%	0.1%	0.1%	0.1%	0.1%
Personal care	2.06	0.2%	0.3%	0.3%	0.3%	0.2%
Insurance	7.49	**0.5%**	**0.6%**	**0.8%**	**0.8%**	**0.8%**
Financial services	1.80	0.3%	0.4%	0.3%	0.1%	0.1%
Other services	2.69	**0.6%**	**0.5%**	0.4%	0.3%	0.1%

Source: Statistics South Africa, 2010

Although the electricity and other fuels product index is not one of the main product indices, the impact of higher electricity tariffs in 2009 can clearly be observed in the 0.5 to 0.6 percentage point contributions. Interestingly, the 24.8 per cent tariff increase granted to Eskom in 2010 by the National Energy Regulator (NERSA) will have a 0.6 percentage point direct impact on the provincial inflation rate, which will be higher than the national direct impact of 0.5 percentage points. Limpopo will experience a 0.8 percentage point impact on the provincial inflation rate – the highest in South Africa.

As a matter of interest, the food product index was the major determinant from January 2009 to October 2009 among the group of main drivers. The insurance product index followed the former from November 2009 until the latest reading in January 2010.

Within the food product index, Stats SA further distinguishes 9 product sub-indices, such as bread and cereals, meat, vegetables as well as milk, eggs and cheese. In Mpumalanga, as with the other eight provinces, bread and cereals as well as meat are the two leading product sub-indices in the food product index. These two sub-indices contribute 52.7 per cent to the total weighting of the food product index in Mpumalanga. As the main determinants of the food product index, inflation of these two sub-indices will therefore be compared with the rest of South Africa.

As with the group indices, Mpumalanga exhibited the highest inflation rate in only one of the dominant product indices (purchase of vehicles at 6.0 per cent). However, along with KwaZulu-Natal it was the only two provinces to have exceeded the national rate in four of the five dominant product indices (Table 9). This underlines the reality that Mpumalanga's elevated inflation condition is a result of a broad spectrum of higher prices across inflation determining indices, instead of merely a few large increases in one or two of the indices.

Table 9: Inflation mean of dominant product indices, South Africa & provinces, 2009-2010

Region	Bread & cereals	Meat	Owners' equivalent rent	Purchase of vehicles	Insurance
WC	9.7%	6.3%	6.0%	-0.1%	8.7%
EC	6.6%	6.4%	6.1%	-1.6%	7.8%
NC	8.8%	10.5%	5.4%	-1.0%	7.4%
FS	6.9%	8.3%	6.4%	3.0%	7.7%
KZN	8.0%	7.0%	5.8%	3.8%	8.9%
NW	6.6%	6.0%	7.3%	-0.9%	9.7%
GP	6.7%	6.2%	4.1%	4.0%	10.4%
MP	8.2%	8.1%	4.6%	6.0%	9.5%
LP	5.7%	4.0%	5.9%	3.3%	6.7%
SA	7.3%	6.4%	5.3%	2.3%	9.3%

Source: Statistics South Africa, 2010

By combining the weights of the product indices with the inflation mean presented above, the combined percentage point contribution by the five principal inflation determining product indices to the total inflation rate are obtained. From Table 10 it is noticeable that, together with KwaZulu-Natal, Mpumalanga was the only province to have exceeded the national percentage point contribution in three of the five product indices (indicated in red). Mpumalanga recorded the highest combined contribution of 2.8 percentage points. Expressed in different terms, the five product indices were responsible for 2.8 percentage points of the 8.0 per cent inflation mean for the CPI-period.

Table 10: Contribution of dominant product indices to inflation in South Africa & provinces, 2009-2010

Region	Bread & cereals	Meat	Owners' equivalent rent	Purchase of vehicles	Insurance	Combined percentage point
WC	0.2%	0.3%	0.9%	0.0%	0.5%	2.0
EC	0.4%	0.3%	0.6%	-0.1%	0.5%	1.7
NC	0.3%	0.8%	0.4%	-0.1%	0.5%	1.9
FS	0.2%	0.4%	0.5%	0.3%	0.6%	2.1
KZN	0.5%	0.4%	0.6%	0.3%	0.5%	2.2
NW	0.3%	0.3%	0.5%	-0.1%	0.8%	1.9
GP	0.2%	0.3%	0.5%	0.4%	0.9%	2.3
MP	0.5%	0.5%	0.4%	0.8%	0.7%	2.8
LP	0.5%	0.3%	0.5%	0.2%	0.3%	1.8
SA	0.3%	0.3%	0.6%	0.2%	0.7%	2.1

Source: Statistics South Africa, 2010

Although the five main product groups recorded the highest combined percentage point contribution in the case of Mpumalanga, the province registered only one highest contribution in the purchase of vehicles product group. Again this demonstrates that Mpumalanga's elevated inflation state is a result of higher prices across a broader range of inflation determining indices than just merely the largest increases in one or two of the indices.

8. CONCLUSION

Mpumalanga's inflation rate consistently exceeded the national inflation rate over the period January 2003 to January 2010. Not only was it higher than the national inflation rate, but also consistently higher than the inflation rate in any of the other eight provinces. Over the stated period, inflation in Mpumalanga exceeded the upper band (6 per cent) of the inflation target more than South Africa or any province did.

Broadly classified the main determinants of inflation in Mpumalanga are price changes in **food and non-alcoholic beverages**, **housing and utilities**, **transport** as well as **miscellaneous goods and services**. These four broad determinants contribute more than 70 per cent to the level of inflation and inflation movements in Mpumalanga. Mpumalanga did not record the highest price increases among the provinces in all four main inflation determining groups, however, from the analysis it is clear that Mpumalanga's elevated inflation state is a result of higher prices across a broader range of inflation determining indices than just merely the largest increases in one or two of the indices.

By dissecting the group indices in more detail it is evident that **food** (mainly cereals and meat), **owners' equivalent rent**, **purchase of vehicles** and **insurance** were the main determinants of the four main groups mentioned above. The four dominant product indices combine to contribute more than 50 per cent to the level of inflation and inflation movements in Mpumalanga. As with the group indices, Mpumalanga did not record the highest price increases among the provinces in all four main inflation determining groups, however, this underlines the reality that Mpumalanga's elevated inflation condition is a result of a broad spectrum of higher prices across inflation determining indices, instead of merely a few large increases in one or two of the indices.

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