

Trends of staple food and input prices: Global and regional overview, 2007-2010

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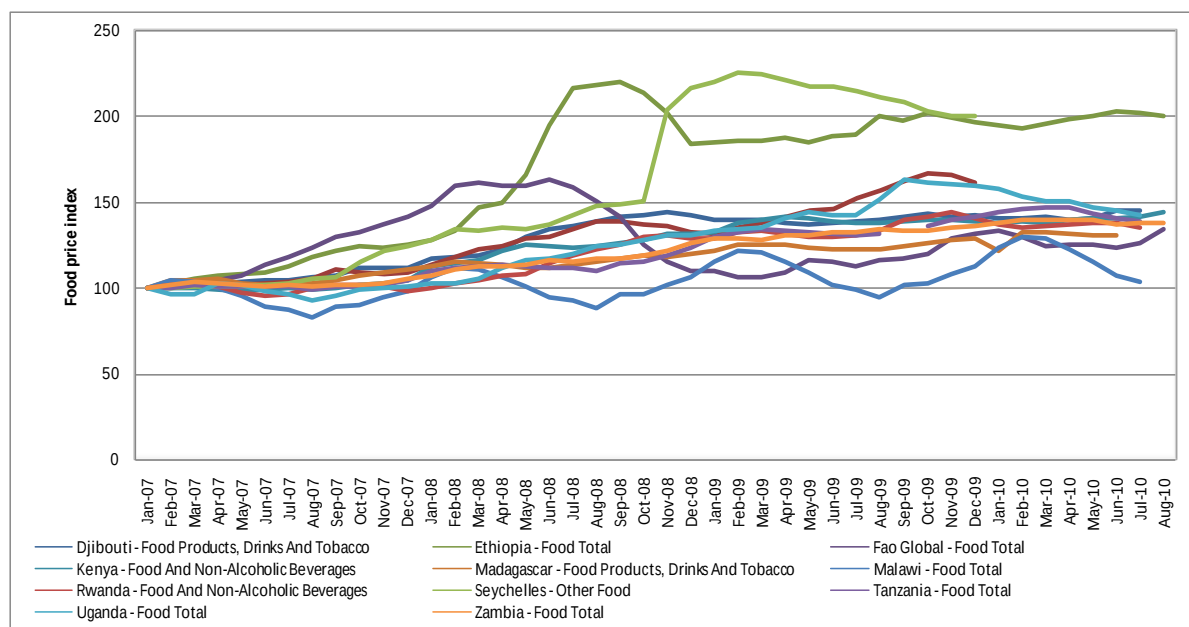
This policy brief is the fifth in a series of quarterly briefs that provide updates on the food price situation in the Eastern and Southern Africa (ESA) region. The briefs are a follow up of an earlier study on the impact of rising food prices in the ESA region that was carried out by the Association for Strengthening Agricultural Research in East and Central Africa (ASARECA) in collaboration with the Regional Strategic Analysis and Knowledge Support System for Eastern and Central Africa (ReSAKSS-ECA) and the Consultative Group on International Agricultural Research (CGIAR) Alliance. The first update focused on the food price trends in ESA and their relationship with global food prices. The second update discussed policy responses to the food price crisis in ESA region. The third update focused on the relationships between the prices of staple foods and those of non-tradable foods (orphan crops), while the fourth brief discussed the linkages between the prices of agricultural inputs and output. This brief looks at the trend of the staple food prices, both global and national, over the period 2007-2010 and presents the price trends of inputs (fertilizer and fuel) over the same period. It also discusses the status of food prices before and after the food price crisis of 2008. Have the food prices continued to soar after the 2008 food price crisis? What is the effect of the drought in Russia and Thailand and the flooding in Pakistan on global and regional food prices?

A comparison of global and country food price indices

The Food and Agriculture Organization of United Nations (FAO) global food price index (FPI) generally rose in the year 2007 and in the first quarter of 2008, stabilized during the months of April and May 2008 and peaked in June 2008 (Figure 1). Further, the global food prices remained low and stable in year 2009 but took an upward trend in year 2010 increasing at an average rate of 1 percent between January and May 2010 and at an increased rate of 4 percent between July and August 2010 (figure 1). According to a FAO update on the global cereals supply and demand situation (FAO media centre, 2010), between July and August 2010, the FAO global FPI has increased to its highest level since October 2008, but is still 18 percent lower than its peak in June 2008. In August 2010, FAO reported that the sudden sharp rise in global wheat prices following drought in the Russian Federation and the country's subsequent restrictions on wheat sales was likely to drive an increase in global FPI though food security situation is generally observed to be stable. Further, the drought in Thailand may also contribute to increased global food prices considering that Thailand is the world's largest rice exporters. However, staple food prices in global markets are currently substantially lower than at their peak in 2008. The decline in global food prices after 2008 was primarily due to a strong supply response; bumper harvests in many parts of the world and a fall in demand as the world economy slowed down following the financial crunch of 2008. Domestic FPI in ESA region on the other hand continued to increase in Kenya, Zambia, Tanzania, Uganda, Ethiopia, Djibouti and Madagascar until the first half of 2009. Malawi, Uganda, and Tanzania FPI have declined during the first half of 2010 while over the same period Madagascar and Zambia FPI has remained steady (Figure 1).

A similar trend of stable or declining food prices in ESA region during the first half of 2010 has also been reported by World Food program (WFP, 2010: Issue no. 8), Famine Early Warning Systems Network (FEWS NET/USAID, 2010: June Monthly price watch) and FAO Global Information and early warning system on food and agriculture (FAO-GIEWS, 2010). The decline in food prices in the region according to FAO and FEWS NET is due to increased production attributed to good weather conditions and agricultural programs that provided among others price subsidies for fertilizers and maize seeds in year 2009/2010.

Figure 1. Food price index (January 2007=100)



Data Source: FAO; Country Statistical offices

Ethiopia FPI has remained highest, above all the other countries in ESA and also above the global FPI since the first quarter of 2008. Ethiopia FPI as from February 2010 to May 2010 has been increasing, while the months of June, July and August the food prices are decreasing. Generally, the staple food prices in Eastern Africa (Ethiopia, Kenya, northern Sudan, Somalia, Tanzania, and Uganda) in the month of September are expected to decline further in most markets with improved supplies following the recent harvests in the months of July and August across the region. A similar scenario is likely to be observed in Southern Africa where the staple food prices are currently stable and or declining (Figure 1: Malawi, Madagascar and Zambia). From September on, prices are likely to start rising in many markets in ESA region as producer stocks will start to be depleted and more households will rely on markets.

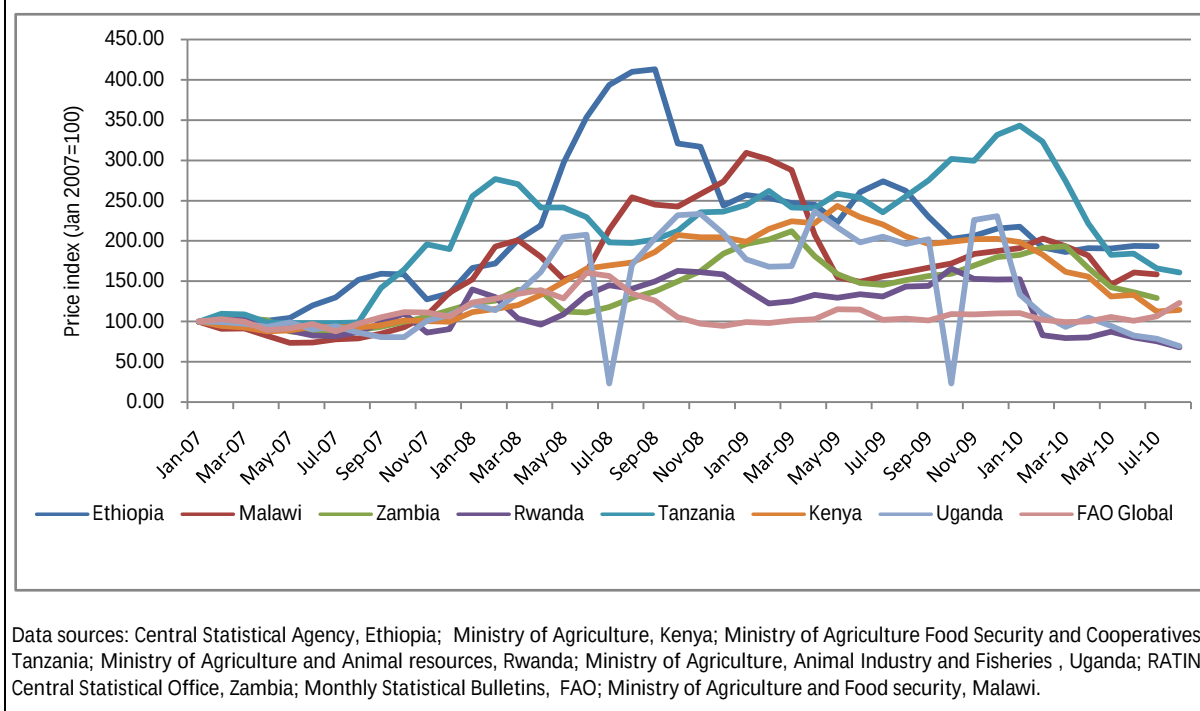
Evolution of staple food prices

The main staple foods considered in this brief include maize, rice, beans, wheat, milk and meat.

Evolution of maize prices

Global maize prices shot up in the first half of 2008, which was followed by a continued decline in the first quarter of 2009. Since then global maize prices have remained relatively low and stable. However, the period between March and July 2010 has reported an average increase in global maize price of 3.4 percent. On the other hand, maize prices have fallen in most ESA countries in the last half of 2009 and the first half of 2010.

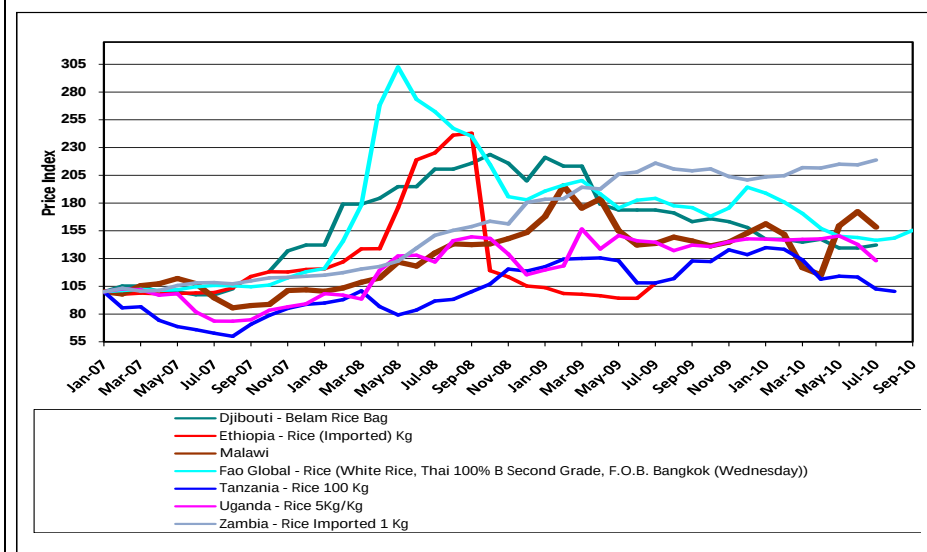
Figure 2. Maize price indices (January 2007=100)



Between March and July 2010, maize prices dropped by 9 percent in Kenya, 7 percent in Zambia, 2 percent in Rwanda and 6 percent in Uganda, while in Tanzania the maize prices dropped by 12 percent. The declining maize price was probably due to the government's intervention in efforts to boost food supplies through duty free maize imports (Kenya) and export bans (Kenya and Tanzania). According to FAO, the decline in maize prices in 2010 in Kenya, Uganda, Rwanda, Tanzania and Zambia is due to increased production attributed to good weather conditions and agricultural programs (for example price subsidies for fertilizers and maize seeds in Kenya in year 2009/2010 and Crop Intensification Program in Rwanda). The current decline in maize prices in ESA region is likely to improve food access.

Evolution of rice prices

Figure 3. Rice Price indices (January 2007=100)



Data Sources: FAO Commodities and Trade Division; Ministry of Economy, Finances and Planning, in charge of Privatization, Consumer Price Index monthly releases, Djibouti; Central Statistical Agency, Ethiopia; RATIN, Tanzania, Rwanda and Uganda; Central Statistical Office (CSO) Monthly Statistical Bulletins, Zambia.

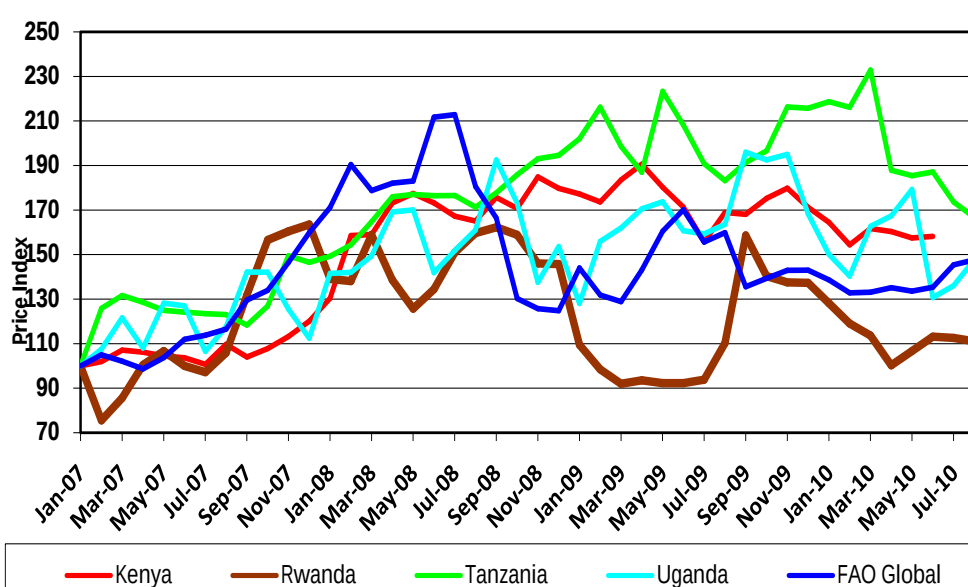
According to FAO, the current (2010) global rice production is 3.5 percent higher than the 2009 production despite the drought experienced in several important rice-producing Asian countries. This has resulted in the steady decline in global rice prices since January 2010. However figure 3 shows the global rice prices regaining some strength in June, July and August 2010 and according to FAO, the slight price increase noted is due to drought in Thailand (the world's largest rice exporter) and flooding in Pakistan.

Domestic rice prices in ESA region were on an increasing trend in the years 2007 and 2008 (figure 3). In Uganda and Tanzania, rice prices in 2009, though higher than the January 2007 levels, were lower than the 2009 global prices while in Zambia, rice prices have been on the rise since year 2007 to date. On average, rice prices declined in Uganda and Tanzania by about 5 per cent and 3 per cent respectively between May and July 2010, while in Djibouti the prices declined by less than 2 per cent over the same period. According to FAO, in Eastern Africa (Tanzania and Uganda) favorable climatic conditions and continued government support to the sector, such as waiving of value added taxes on agricultural implements, are expected to boost output and further reduce rice domestic prices in the remaining part of 2010.

Evolution of beans prices

Both global and domestic bean prices have been increasing since January 2007 and during the first half of 2008 (figure 4). The second half of 2008 depicted declining bean prices globally and in the selected ESA countries. Though global bean prices were low in comparison to the prices recorded during the food crisis in the first half of 2010, they are on an upward trend though at the low average rate of one per cent over the period January and July 2010.

Figure 4. Bean price indices (January 2007=100)



In the year 2009, bean prices in Rwanda were at their lowest since the year 2007, and they took an upward trend in the last quarter of 2009.

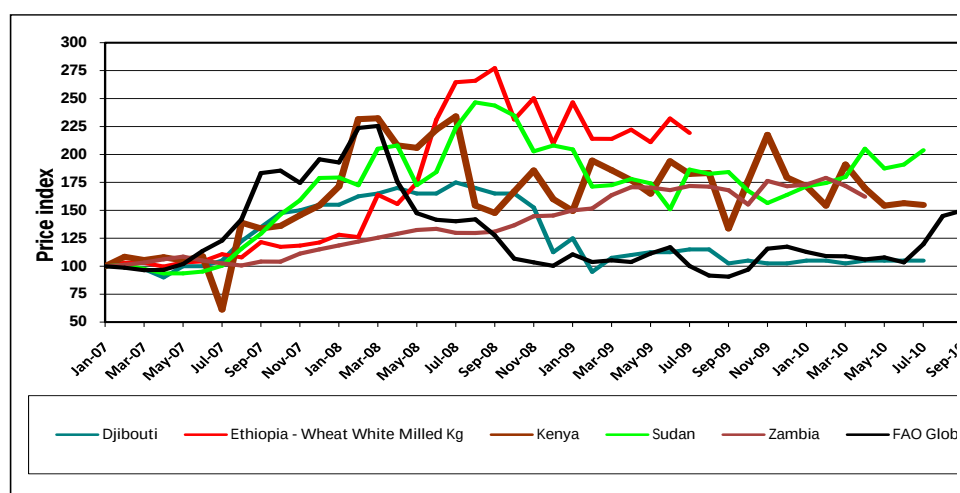
Data Source: FAO Commodities and Trade Division; Ministry of Agriculture, Kenya; RATIN, Tanzania, Rwanda and Uganda.

In Tanzania, bean prices have declined over the period March to August 2010 while in Uganda the prices dropped by 10 per cent between May and June 2010, which is the harvest Season of pulses in Uganda, thus increasing market supplies. However, bean prices in Uganda have increased between July and August 2010 by six per cent depicting depletion of production stocks.

Evolution of wheat prices

Both global and domestic wheat prices were stable in the first half of 2007 (figure 5). Just like the other food prices, wheat prices were on an increasing trend in year 2008 with decline in prices being observed in year 2009. Kenya showed very erratic wheat prices over the period 2007-2009 (figure 5) but in the months of May, June and July 2010, Djibouti and Kenya wheat prices remained relatively steady, while Sudan wheat prices have increased over the three months period. Global wheat prices on the other hand stabilized during the first half of 2010 but took an upward trend in the months of July and August increasing at a monthly rate of 16 and 21 per cent respectively. The increase in global wheat prices observed in August 2010 is the largest month on month increase since January 2008, even higher than at the peak of the global food crisis in 2008 which was at its highest at 16 percent in the month of February 2008. According to the FAO, the sudden sharp rise in global wheat prices between July and August 2010 was due to a severe drought in the Russian Federation and the country's subsequent restrictions on wheat sales through the ban on all grain exports in response to the widespread crop failures. According to FEWS NET, wheat production this year in Russia, Kazakhstan, and Ukraine will decrease by 16.7, 5.5, and 3.9 million metric tons (MMT), respectively, compared to last year. Yields will also be lower in Canada, due to excessive rainfall, (6 MMT lower than last year) and other parts of the world. As a result, world wheat production is expected to drop by 34.6 MMT compared to 2009-10, a 5 percent decline, despite prospects for good production in Argentina, Australia, China, India, Turkey, and the United States. Russia is a major player in world wheat exports and its production represents less than 10 percent of total global output. The European Union (EU) and China are the largest wheat producers, accounting for around one third of total global output.

Figure 5. Wheat price indices (January 2007=100)

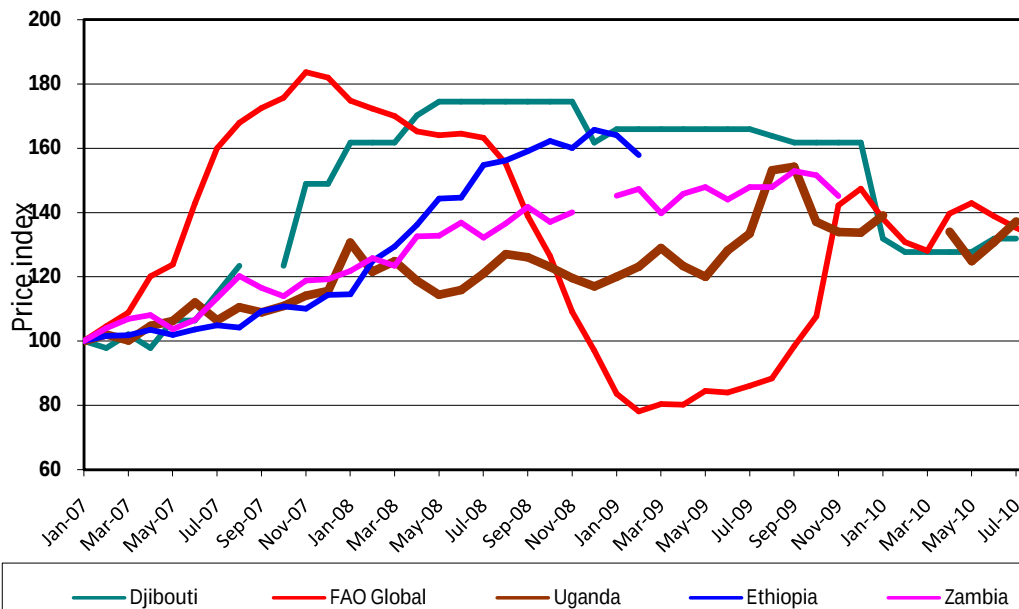


Data Source: FAO Commodities and Trade Division; Ministry of Economics, Finance and Planning, in charge of Privatization, Djibouti; Central Statistical Agency, Ethiopia; Ministry of Agriculture, Kenya; Ministry of Agriculture, Sudan; National Statistical Offices, Zambia.

According to World Food program (WFP), the price of wheat grain in Afghanistan rose by 8 percent between June and July 2010 while in Pakistan wheat price increases of 15 to 20 percent have been reported, although this may be largely due to the floods.

Evolution of milk prices

Figure 6. Milk price indices (January 2007=100)



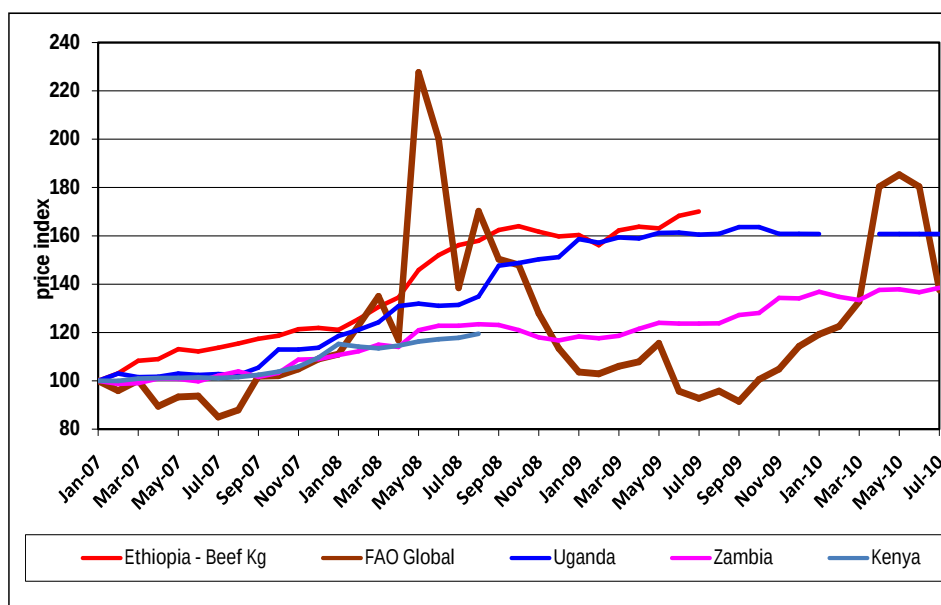
Data Source: FAO Commodities and Trade Division; Ministry of Economics Finance and Planning, in charge of Privatization Consumer Price Index monthly releases, Djibouti; Central Statistical Agency, Ethiopia; Uganda bureau of statistics, Uganda; Central Statistical Office (CSO), Monthly Statistical Bulletins, Zambia.

Global milk prices were on the rise in the year 2007 but drastically dropped in 2008 (figure 6), and stabilizing and remained low in the year 2009. The global milk prices strengthened in the months of October, November and December 2009 though at a lower level than in 2007.

The global milk price increase in the last months of 2009 was largely caused by reduced export supplies, particularly from the European Union, which retained stocks in an effort to minimize export subsidies, and by a sustained import demand, notably from Asia. The first quarter of 2010 shows a drop in global milk prices with a minimal increase in April 2010. On the other hand, domestic milk prices increased in the years 2007 and 2008 in Uganda, Djibouti and Ethiopia. However, the first quarter of 2010 showed a decline of milk prices in Djibouti and Uganda (figure 6) with increasing milk prices being reported in Uganda in the months of June and July 2010.

Evolution of meat prices

Figure 7. Meat price indices (January 2007=100)



Data Source: FAO Commodities and Trade Division; Central Statistical Agency, Ethiopia; Uganda bureau of statistics, Uganda; Central Statistical Office (CSO), Monthly Statistical Bulletins, Zambia.

Global and domestic meat prices in Kenya, Zambia and Uganda were fairly low and stable in the year 2007 but started to increase thereafter until the end of 2008 when global meat prices took a declining trend throughout year 2009. According to FAO, the year 2009 was characterized by a marginal increase in global meat production, a fall in the volume of world trade and thus the fall in prices.

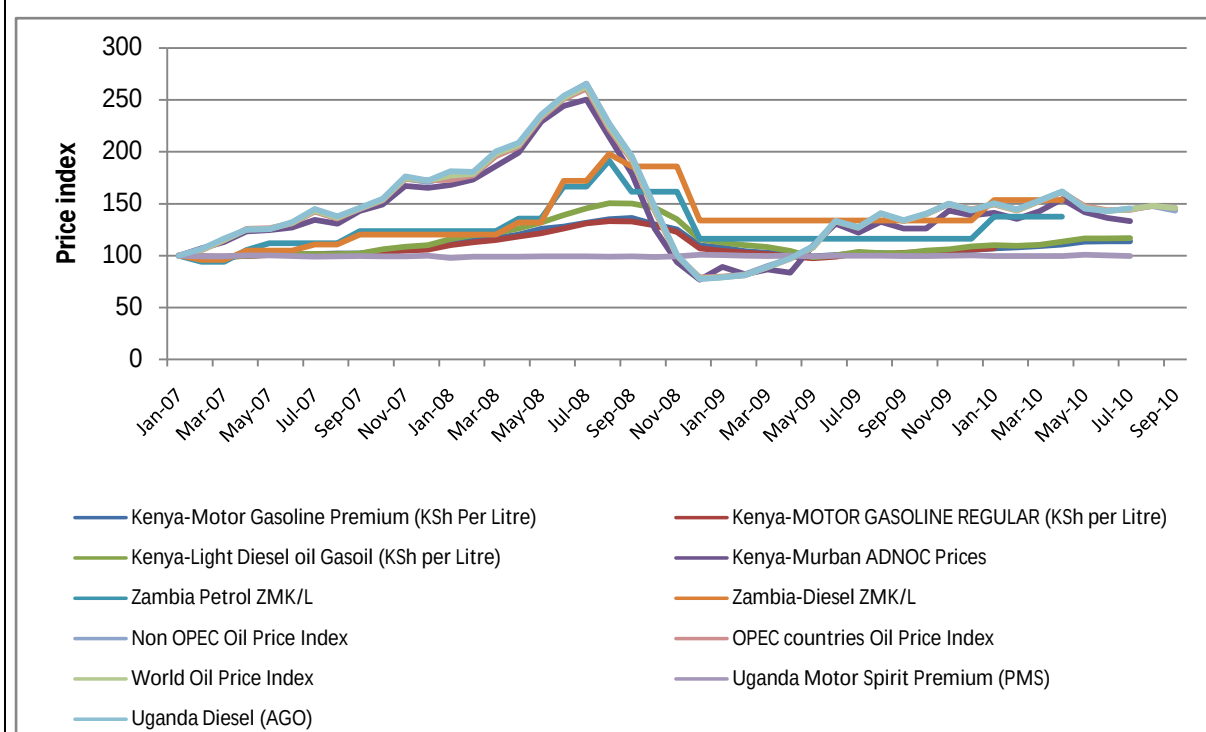
However figure 7 shows the global prices gained some strength increasing in the last quarter of 2009. The year 2010 has seen global and domestic meat prices in selected ESA countries continue to increase. The increasing global prices of meat observed from January to May 2010 are as a result of tight supply in large exporting countries; Australia, Argentina and Uruguay where there was a drought in year 2009, which resulted in herd liquidation, that is, reduction of herd inventory through sale or slaughter. This was coupled with improved demand after the economic recession. The drought has caused a slump in beef production and exports restrictions. However, the global meat prices have declined in the months of June and July 2010. Between April-July 2010, Uganda meat prices also stabilized.

Evolution of fuel and fertilizer prices

Evolution of fuel prices

World fuel prices peaked in July 2008 after which the prices fell and stabilized in first quarter of 2009, subsequently increasing in the second half of 2009 (figure 8). Year 2010 reflects stable, low world fuel prices. The low oil prices contribute to price decreases for most agricultural crops as it means lower input costs. Most oil products in ESA are normally imported thus the price trends within the ESA region somehow track those of global crude oil fuel price. While fuel prices remained stable in Zambia, Uganda and Kenya in year 2009, they increased in the year 2010 (figure 8). In Kenya, diesel and premium fuel oil prices have increased at an average monthly rate of 1 percent since February to July 2010.

Figure 8. Fuel price indices (January 2007=100)

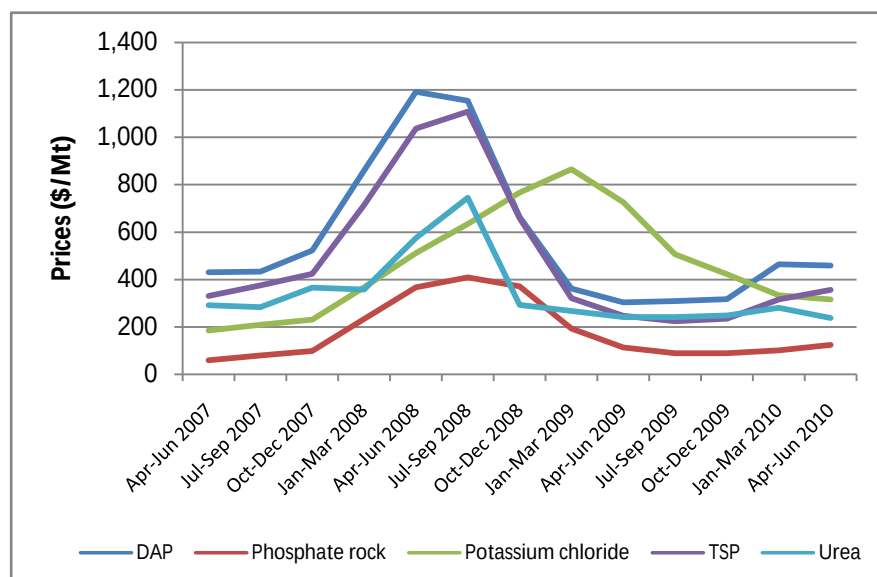


Data source: World: US energy information administration independent statistics and analysis; Energy Regulation Board, Zambia; Kenya National Bureau of statistics, Kenya; Bank of Uganda; Economic and financial indicators monthly reports, Uganda.

Evolution of fertilizer prices

The prices of DAP, phosphate rock, Potassium chloride, TSP and Urea were relatively stable in the year 2007 (figure 9). In 2008, world fertilizer markets experienced a period of great volatility reporting the highest recorded prices in mid of 2008, followed by a rapid fall in prices throughout the second half of 2008. In 2009, fertilizer prices stabilized while year 2010 reports a slight increase in world fertilizer prices followed by stabilization in the second quarter of 2010 mainly of DAP and phosphate rock.

Figure 9. World fertilizer prices



Data source: World Bank

High fertilizer prices in year 2008 were probably offset by the increased government interventions in various countries including removal of fertilizer taxes, tariffs and levies and subsidies. Given that fertilizers are a major agricultural input, the low fertilizer prices translate to a relatively low cost of staple food production.

Outlook for 2011

Based on FAO's forecasts of global supply and demand in 2010/11, world cereal production is expected to increase from 2253.1 MMT in 2009/10 to 2279.5 MMT in 2010/11. Exports are also expected to go up from 261.8 MMT in 2009/10 to 264.5 MMT in 2010/11 depicting stable global food security. A similar trend is reflected in ESA region in the year 2010, with the majority of staple food commodities readily available on local markets. This is attributed to the good harvests by the majority of rural households. In EA, there has been normal to above normal rainfall in most parts of the region and favorable crop harvests are expected throughout the year. Food security is likely to improve in most parts of the region from October to December 2010 as main season harvests take place. However, forecasts for the October to December 2010 rains indicate the probability of below normal rains due to a developing La Niña event which may negatively impact crop production for the early 2011 harvests.

Conclusions

Due to the improved food access, the staple food prices in global markets are currently substantially lower than at their peak in 2008. The decline in global food prices after 2008 was primarily due to a strong supply response including bumper harvests in many parts of the world and a fall in demand as the world economy entered a recession. Further, global food prices remained low and stable in the year 2009 but took an upward trend in the first half of 2010 though at a lower rate than in June 2008 when global food prices skyrocketed. Individual staple food global prices mainly maize, beans, rice and milk generally remained low and stable after the 2008 food crisis even though the prices have increased minimally in the first half of 2010.

While global dairy markets remain stable, global meat prices have been on the rise mainly due to declining production. Global wheat prices showed the highest increase in the months of July and August 2010, which is partially attributed to the recent drought in Russia and the floods in Pakistan. Though there are sufficient supplies of wheat around the world, the drop in wheat production in Russia in 2010 may not cause global food security effect but the situation may threaten the food access (especially of wheat products) of ESA countries with impoverished populations, point in case being the recent riots in Mozambique over increased bread prices.

Domestic prices of major staple foods in the ESA region have seen a downward trend after the 2007-2008 food price crises. Most countries in ESA region experienced a decline in food prices during the first half of 2010. Over the same period, the maize prices in most ESA countries were on a downward trend, with beans and rice too reporting decreasing prices especially in EA region.

The decline in individual staple food prices in the region is as a result of increased production, which is attributed to good weather conditions and various national Agricultural programs employed in attempts to address the food price problem. This has currently improved the ESA's region food security. The situation is expected to continue in September with staple food domestic prices expected to decline in most markets in the EA region especially in Ethiopia, Kenya, Tanzania, and Uganda with improved supplies following the harvests in July and August across the region. The low prices occurring in those main producing areas would boost food security for the food importing countries through cross-border trade. In Southern Africa region, the staple food prices are expected to remain stable until the start of the lean season, which begins around October when prices are expected to begin to go up due to stock depletion, hence leading to more households relying on market supplies. On the other hand, increases in fuel and fertilizer price increases the cost of Agricultural production translating to negative impact on consumers. The fuel and fertilizer price trends follows suit those of the staple food prices. The world and regional fuel and fertilizer prices were relatively stable in year 2009 after the food/fuel price crisis of year 2008, but were observed to increase at a relatively low rate in year 2010.

This bulletin is one in a series of updates based on an October 2008 report which is available at: http://www.asareca.org/resources/reports/resp2food_pr_main.pdf and subsequent development updates available at <http://www.ilri.org/research/Content.asp?CCID=96&SID=264&ContentPage=2>. For further information <mailto:j.karugia@cgiar.org>