

HOW CAN KENYA BETTER MANAGE FOOD PRICES? EFFECTS OF VALUE ADDED TAX , IMPORT TARIFFS AND PRODUCER PRICE SUPPORT

*Presented During a Breakfast Meeting on 'Managing
Food Prices: Domestic Pricing Policies and Cross Border
Trade'*

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**TEGEMEO INSTITUTE OF
AGRICULTURAL
POLICY AND DEVELOPMENT**

Outline of Presentation



- Introduction

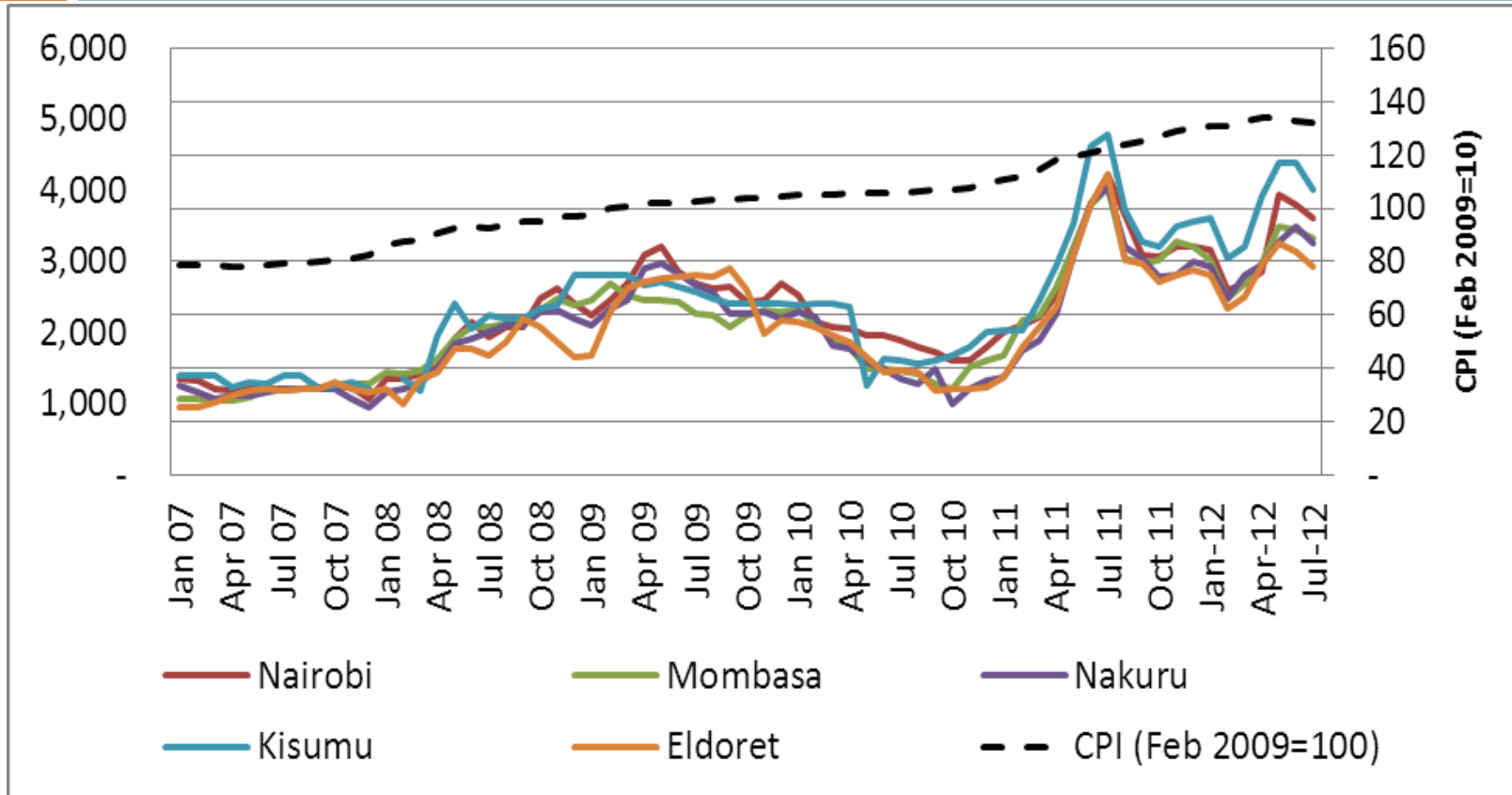
- Key Messages
 - ▣ Potential effects of proposed 2012 VAT Bill
 - ▣ Effects of import taxes (tariff) and producer price support on food prices in Kenya

- Policy Implications

Introduction

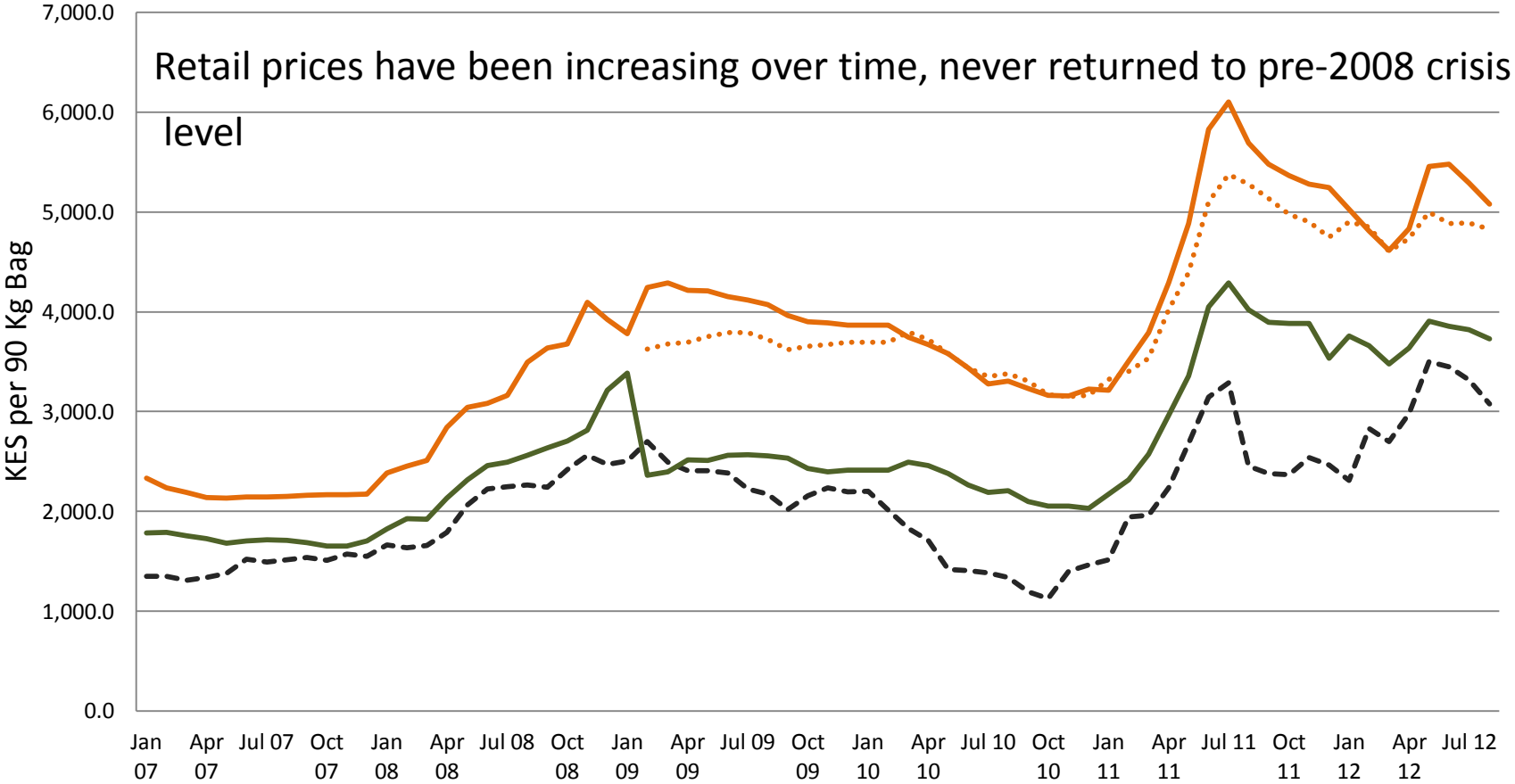
- High food prices and food insecurity remain the greatest challenge in Kenya
 - About a third of the Kenya population suffer from chronic food insecurity and poor nutrition. Between 2 to 4 million people require emergency assistance at any given time (NFNSP)
 - About 45% of population lives below the poverty line
 - Structural deficit in key staple foods
- Between January 2008 and August 2012:
 - Wholesale price of maize grain increased by 19%
 - Retail price for maize grain and flour increased by 114% and 127% respectively

Maize Prices in Wholesale Markets



1. Maize prices have been increasing over time
2. Prices have not declined to pre-2008 crisis level

Retail Prices of Maize Grain and Flour



--- Msa W/sale — Maize Grain - Loose (KES) Maize Flour - Loose (KES/90kg) — Maize Flour - Sifted (KES/90kg)

Introduction contd.

- Direct link between high food prices and poverty

- Most rural households in Kenya are net buyers of food (Jayne et al. 2001)
 - increasing maize price increases rural poverty rates (Mghenyi and Jayne 2006)

- Urban households
 - A high and increasing proportion of income spent on food (Kamau et al. 2010a)
 - 44% of households are undernourished

Question

What actions can government and other players take to mitigate against such damaging price escalations? We analyse:

- the potential effect of imposing a 16% VAT on agricultural inputs and maize prices
- policy interventions in maize marketing to provide evidence on their effects on maize prices

Effects of Imposing 16 % VAT on agricultural inputs and food commodities

Raphael Gitau

Background

- The proposed VAT Bill 2012 seeks to introduce 16% VAT on agricultural inputs (e.g. fertilizers and seeds) and some processed food commodities (e.g. maize flour, milk)
- Proponents of the Bill suggest this will not result in significant increases in food prices
- We analyze the potential effects of the proposed VAT Bill

Data and Methods of Analysis

- Building Scenarios on effects of VAT on the following:
 - Cost of production
 - Use of inputs and maize yields at the household level
 - Demand of fertilizer at the national level
 - Food prices (maize)
 - Demand for food (maize)

- Data used
 - Yield gaps (with and without hybrid seed and fertilizer)
 - Price elasticity of demand for fertilizer and sifted maize meal
 - Tegemeo panel data and estimates of costs of maize production in 2011

Results-Farm Level Effects

Cost of Maize Production 2011 with and without 16% VAT				
	Small	Large	Small	Large
Yield (bags/acre)	15	19	15	19
Cost of production	Without VAT		With VAT	
Seed and fertilizer	10,450	10,100	12,122	11,716
Other costs	19,449	23,128	19,516	23,192
Total cost per acre	29,899	33,228	31,638	34,908
Cost per bag	1,993	1,749	2,109	1,837
Source: Tegemeo Institute Maize production Costs in 2011				

- Increase in the cost of production due to increase in the cost of fertilizer and seed
 - ▣ Unit cost per bag increases by 5%-6% depending on the scale of production when 16% VAT is imposed on agricultural inputs

Results-Farm Level Effects-Cont'd

Yield gap of maize for different combinations of fertilizer and seed used by households

Scenarios	Yields (kg/acre)	% reduction in yields
With fertilizer + hybrid seed	980	
No fertilizer + hybrid seed	727	-26
Fertilizer + local seed	892	-9
No fertilizer + local seed	458	-53

Source: Tegemeo Institute household survey 2010

- Average yield of maize in 2011 was about 17 bags per acre (combination of fertilizer + hybrid seed)
- The yield gap for households that **used local seed** and **no fertilizer** is 9 bags per acre less than those using fertilizer and hybrid seed
- Yield gap for households that **used hybrid** seed with **no fertilizer** was 4 bags per acre less
- Results from Tegemeo Panel data show that 33% of households are inconsistent users of fertilizer and seed

Results –National level effects

Price elasticity of fertilizer demand			
With respect to	Decline in the fertilizer demand		
Fertilizer price increase by 1%	-1.05	-1.26	-1.43
Fertilizer price increase by 16%	-16.8	-20.16	-22.88
Proportion decline in demand of fertilizer if 16% VAT is imposed			
Decline in fertilizer in MT	67,058	80,469	91,326
Source: Authors' computation			

- **Decline in the demand of fertilizer**
 - ▣ Imposing a 16% VAT will lead to a decline in national fertilizer demand of between 67,000 and 91,000 MT
 - Current consumption of fertilizers stands at 532,205 MT (MOA)
 - 75% (399,154 MT) of fertilizer consumed consist of both basal (49%) and top dressing (26%)

Results-Consumer level effects

Change in the prices of maize grain (KES) in Nairobi after imposing 16 % VAT on inputs

	Wholesale price	Retail price
Average prices (Nov 2011-Jan 2012) (KNBS)	3,187	3,727
Average prices after 16% VAT imposed on inputs	3,346	3,913

Source: Authors' computation

- Increased price of maize grain
- Assuming mark-up of producers, wholesalers and retailers remains the same and holding all other factors constant, new wholesale and retail prices will increase by 5%

Results- Consumer level effects cont'd

Changes in the price of sifted maize meal in Nairobi after imposing 16% VAT

	KES
Average price per kg (Nov 2011-Jan 2012) (KNBS)	58
Average price per kg with 5% increase in miller costs	61
Average price per kg with 16% VAT on maize meal	71
Source: Authors' computation	

- Increase in the costs of maize grain implies millers costs of purchasing grain will rise
 - With 16% VAT on the sifted maize meal, the price per kg will increase to KES 71 (The consumers will pay a total of 22% more per kg)
- Musyoka et al. estimated price elasticity of sifted maize meal in urban area of Nairobi as elastic (-1.85)
 - With 16% VAT on sifted maize meal, demand will decline by 30%
 - Households will cope through skipping meals, eating less quantity thus exacerbating undernourishment

Summary

- Imposing 16% VAT on agricultural inputs and sifted maize meal will lead to:
 - Farm level effects:
 - Increased costs of fertilizer and seed by 16%
 - Reduction in input use and maize yields (between 2-9 bags/acre)
 - Decline in national demand of fertilizer (between 67,000-91,000 MT)
 - Consumer Level effects:
 - Increase in the price of maize grain (by 5%)
 - Increase in the price of sifted maize meal (by 22%)
 - Decline in the demand of for sifted maize meal (by 30%)

Policy Recommendations

- Subjecting farm inputs and food stuffs to VAT is expected to affect domestic food supply and its affordability, hence food security
- Given the Government objective of ensuring food availability for all its citizens, the legislature should consider implications of any policy move that will further increase price of food
- Increase in food prices will exacerbate the food security situation given that poor households expenditure on food is about 60% of their income (KIHBS, 2006)
- Imposing VAT will counter efforts by the government to enhance farmers access and use of inputs through various government strategies (ASDS) and initiatives (e.g. NAAIAP)

Effect of Import Tariffs , Producer Price Support and Regional Trade

Mercy Kamau

Background

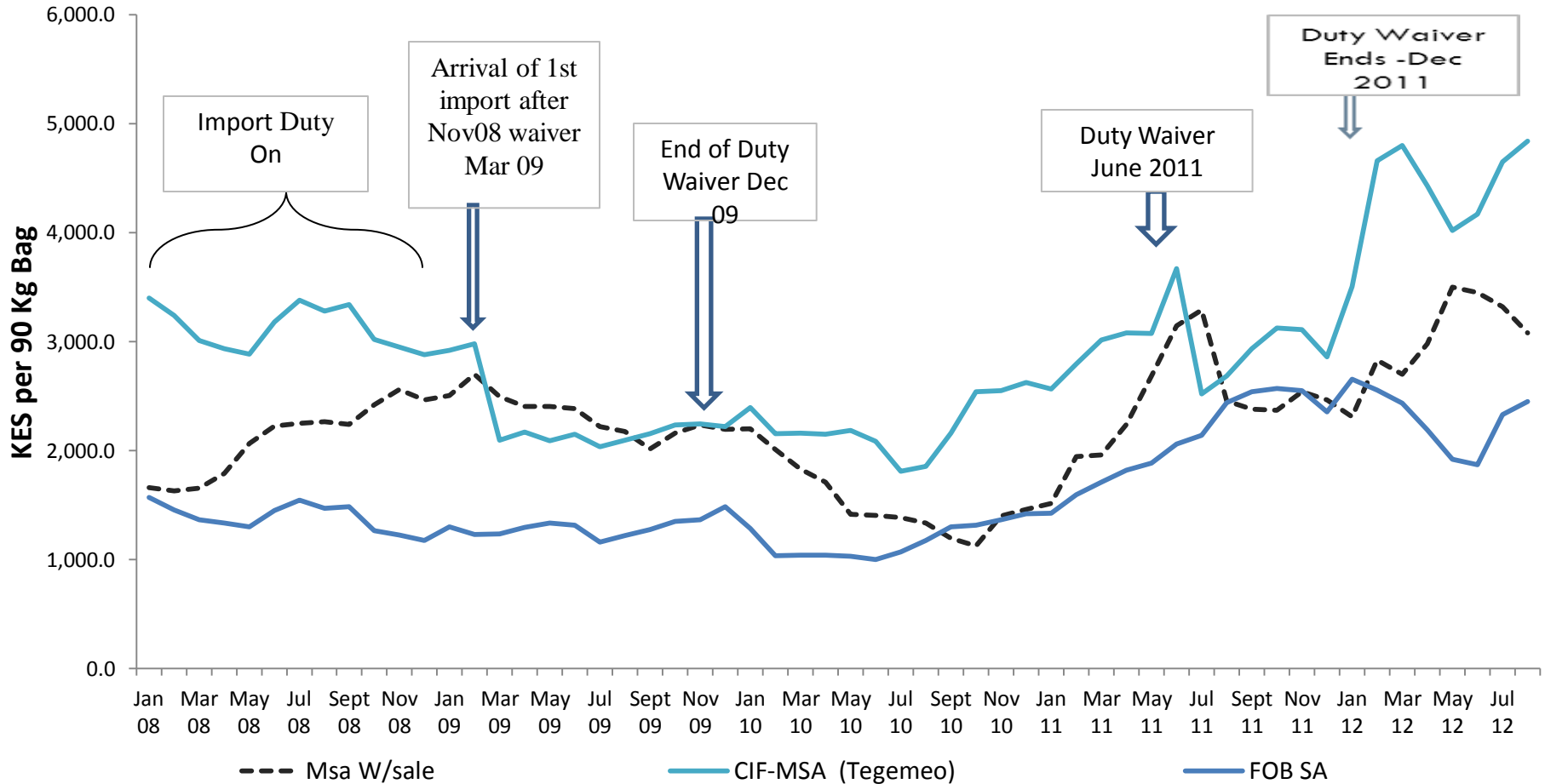
- Government intervenes in the maize market in various ways either to sustain/increase domestic production or to increase maize supply through imports
- Various initiatives and instruments have been used to manage food prices in Kenya
- Such actions influence maize prices by changing the dynamics in the maize market
- Examine the outcomes of selected interventions
 - ▣ Import taxes (tariff) on food prices in Kenya
 - ▣ Producer price support
 - ▣ Regional trade

Data and Method of Analysis

- Examine movement in prices
 - ▣ Domestic prices –wholesale & Retail price (maize grain & flour)
 - ▣ With and without import duty, producer price support, regional trade

- Data used
 - Monthly prices of maize from 2007 to 2012
 - ▣ International Prices
 - ▣ (FOB– South Africa, CIF Mombasa ex-warehouse)
 - ▣ Domestic Prices
 - ▣ Wholesale prices from Min of Agriculture (Eldoret, Kisumu, Mombasa markets)
 - ▣ Retail Prices from Kenya National Bureau of Statistics (KNBS)
 - Loose grain,Sifted flour,Posho (loose flour)

1. Effect of Import Tariff: Domestic Price of Maize Relative to International Prices (2008 - 2012)



Kenya maize is relatively competitive compared with that from South Africa

Effect of Import Tariff Contd.

Change (%) in Prices (Dec 2010–Aug 2012)

Item	With Duty	Without Duty	With Duty	Overall Change
	<i>Dec 10-Jun 11</i>	<i>Jun 11-Jan 12</i>	<i>Jan 12-Aug 12</i>	<i>Overall</i>
FOB Price-South Africa	45	29	-8	72
CIF Price- Mombasa	40	-4	38	84
Wholesale Price-Mombasa	115	-27	33	111
Retail Price-Grain	100	-7	-1	84
Retail Price-Flour Loose	61	-4	-2	53
Retail Price-Sifted Flour	81	-14	1	58

Change in Maize Prices With and Without Duty

Dec 2010 – Jan 2012

1. *With* duty the local prices are increasing (HIGH AND POSITIVE)
2. *Without* duty the local prices decline

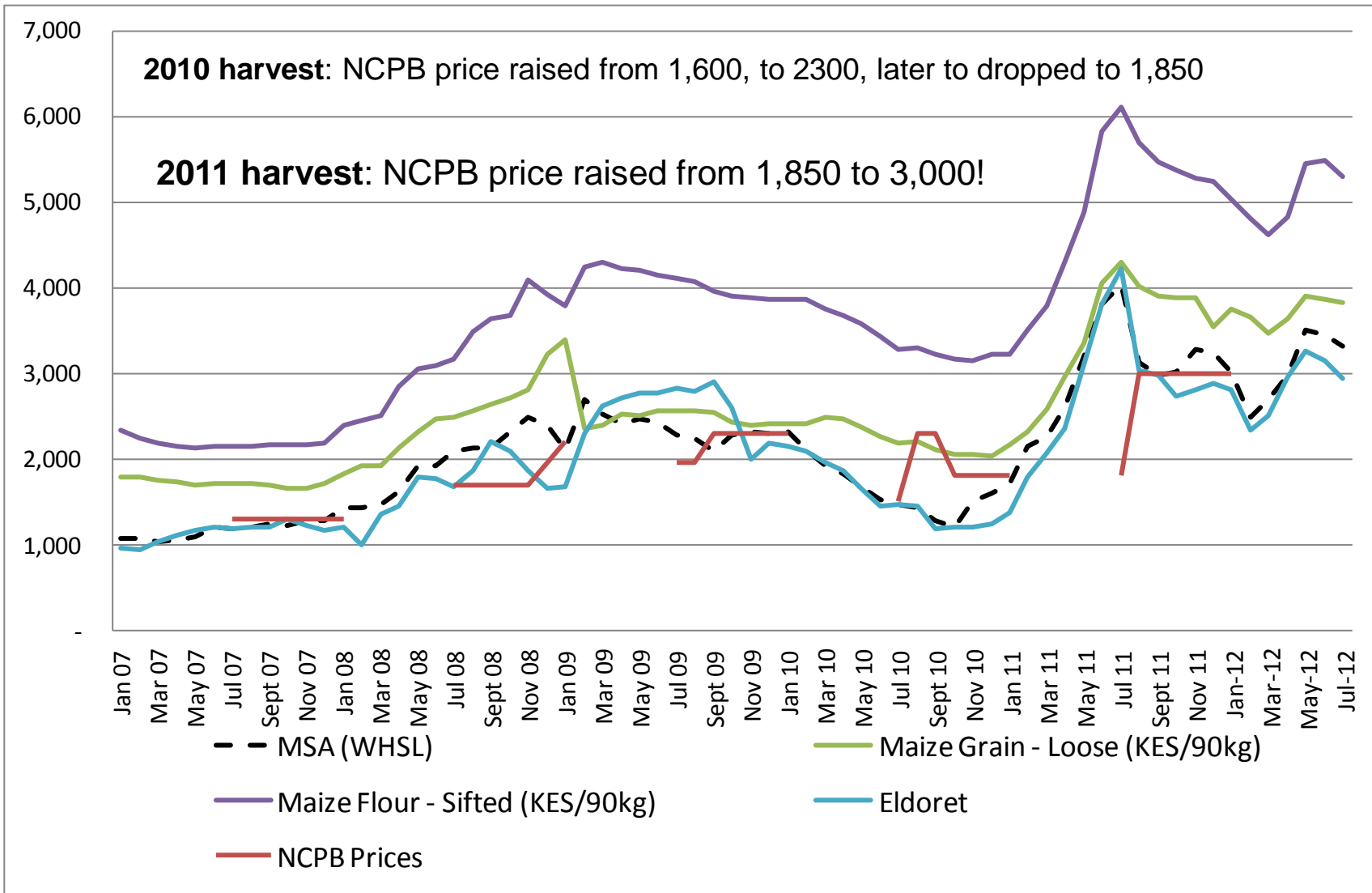
Jan – Aug 2012 with import duty imposed

1. Increasing whole sale price of grain BUT change is lower than Dec 2012 – Jun 2011
2. Small decline/increase in retail prices

Effect of Import Tariff Contd.

- The tariff on imported maize is redundant because imported maize is uncompetitive due to the high cost of importing maize!
- Wholesale (and retail) prices of maize in the domestic market are comparatively lower during periods without import duty than with the duty
- Therefore, the tariff on maize imports increases uncertainty on supplies and speculation in the Kenyan maize market – thereby driving up maize prices!

2. Effect of the Producer Price Support



Effect of the Producer Price Support

- Producer price support effective in cushioning farmers against low prices/maintaining high prices during harvest but this maintains high prices for consumer, thus preventing them from benefitting from low maize prices

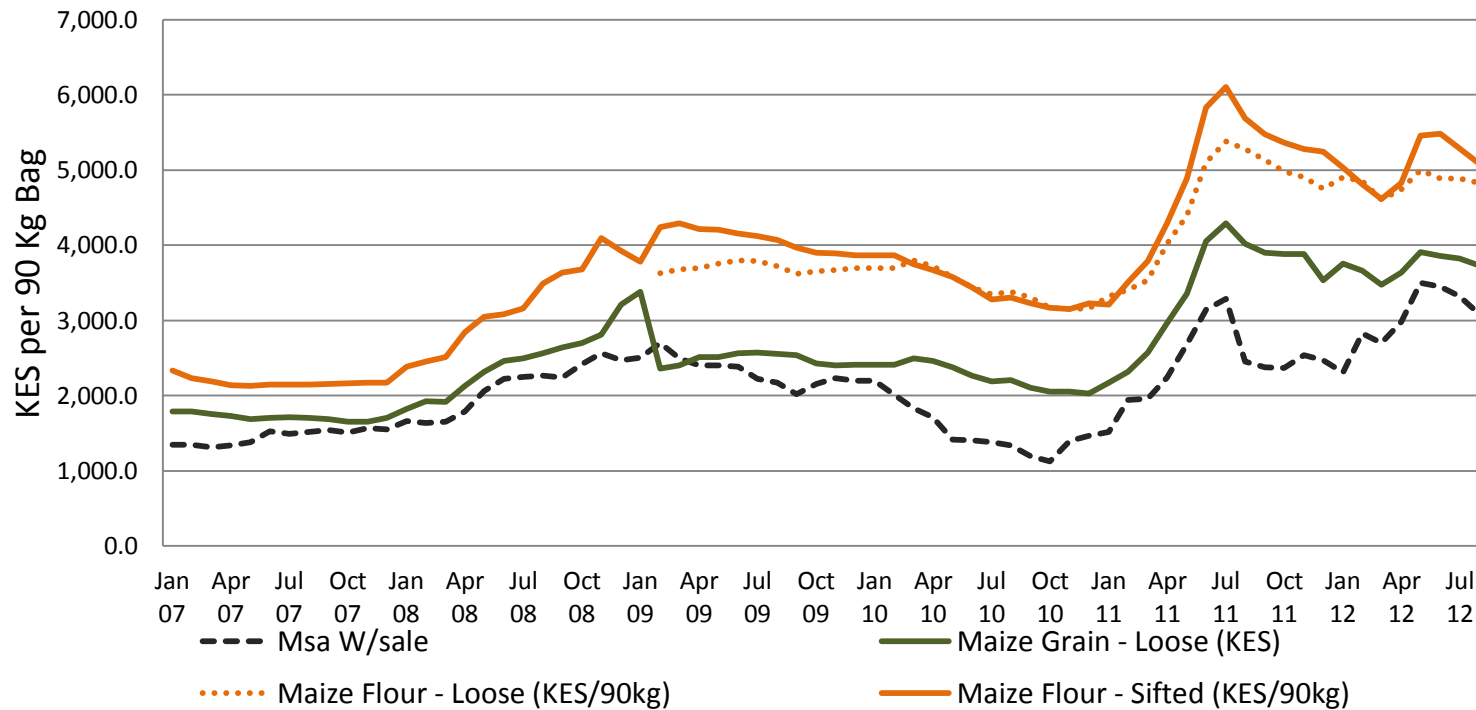
3. Effects of Regional Trade

Maize Inflows (90 Kg Bags) January and July (2007 - 2012)

Month	Year				
	2012	2011	2010	2009	2008
January	73,089	50,000	63,909	861,152	110,433
February	148,865	18,915	247,550	145,585	101,101
March	148,865	31,137	112,193	86,401	62,216
April	339,323	12,792	108,775	86,401	61,532
May	1,527,770	26,732	75,972	86,401	66,478
June	417,550	64,936	63,670	19,000	223,402
July	548,020	202,751	59,188	27,537	78,408
Rest of the yr	354,631	1,300,561	327,370	341,001	678,528
Total Imports	3,558,113	1,707,824	1,058,627	1,653,478	1,382,097

Inflows from neighbouring countries, mainly Tanzania, Zambia?

Effect of Regional Trade



Maize inflows effective in curbing price escalations during deficits in domestic production

Imports from the region would be more effective in stabilizing maize prices if volume of inflows was high right from the beginning of the year i.e. January all the way to June.

Conclusions

Negative Effects on Food Prices

- ❑ tariffs on maize imports
- ❑ direct interventions on prices e.g. producer price support

Positive Effects on food Prices

- ❑ regional trade in grain

Policy Recommendations

- Consider removing tariffs on maize imports.
- Desist from direct interventions on prices e.g. producer price support
- Encourage regional trade in grain because maize inflows from the region effectively curb price escalations during deficits in domestic production
- Provide a policy environment that reduces uncertainties in the maize market

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FOR
YOUR ATTENTION!

