



How must the increase in meat prices be interpreted?

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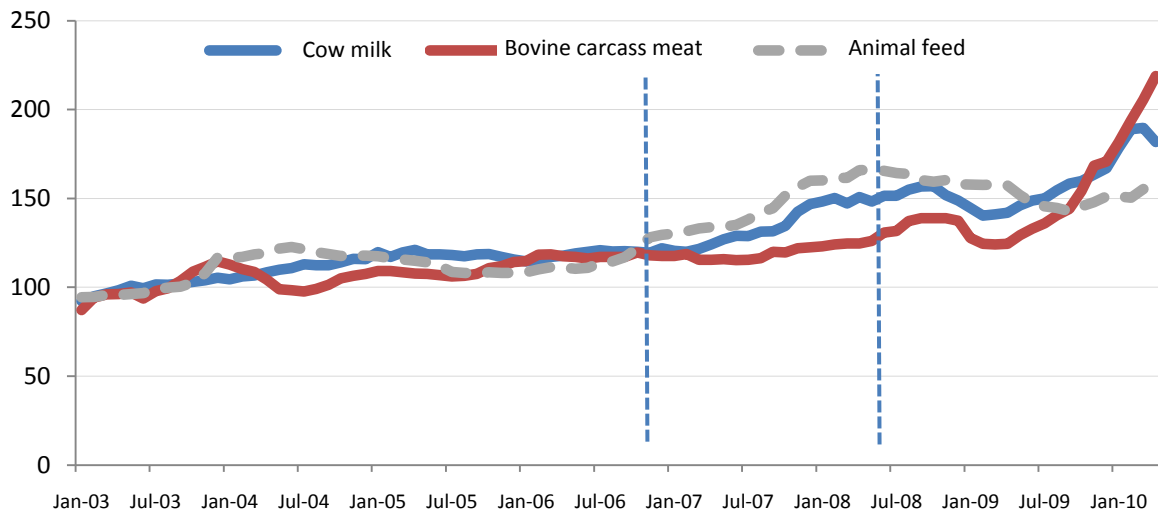
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The increase in meat prices and the government's permitting meat imports through Meat and Fish Authority (MFO) are important items in the recent economic agenda. It is so that meat prices are currently being monitored daily along with other financial indicators; the stock exchanges, exchange rate, interest rate and gold price. It is frequently discussed whether the rapid elevation in meat prices result from speculative acts or wrong policy decisions. The purpose of this note is to examine the movements in price and production in the red meat sector and set forth the reasons for the rapid increase in stock breeding and red meat sectors. This way the note will also give clues on how the meat market should be regulated in the coming period.

The long term movements in meat prices suggest that in the 2003-2009 period prices were stable and that the pace of increase in meat prices varied below the inflation rate (Figure 1). Nonetheless, beginning with the second half of 2009, meat prices tended to rise rapidly. Price of the carcass meat, which stood at 10 TL in September 2009, reached 16.5 TL in average by April 2010. It is observed that the price of the carcass meat reached as high as 19 TL for daily purchases.

Figure 1. Meat, milk and feed prices, monthly average, 2003-2010 (2003=100)



Source: TURKSTAT

Meat prices must be analyzed together with animal feed and milk prices

In order to identify the reason for the increase in prices, price of feed, the most important input of the livestock sector, and production of meat and milk, two most important outputs of the sector, must be analyzed together. Although meat prices were stable in the 2003-2009 period, feed prices tended to increase steeply as of 2007. It is said that the drought in 2006 had a role in this. In the same period, price of milk rose slightly despite the mentioned increase in input costs (Figure 1).

As summarized in Table 1, the balance between the feed price and milk price determines the supply of red meat in Turkey. To put it differently, farmers trying to secure a certain level of income flow make a preference between producing milk and producing milk. As the amount of animal feed that can be bought in exchange for one liter of milk decreases, milk production becomes less profitable. This prevents milk production and makes stock breeders prefer slaughtering and meat production. Similarly, in periods where relative falls in feed prices occur, meat production deteriorates while milk production increases. For instance, in 2004 when price of feed and milk increased by 19 percent and 11 percent respectively, milk production rose only by 1 percent and production of red meat grew by 22 percent. On the other hand, in 2005 when animal feed prices dropped, production of red meat decreased and production of milk increased.

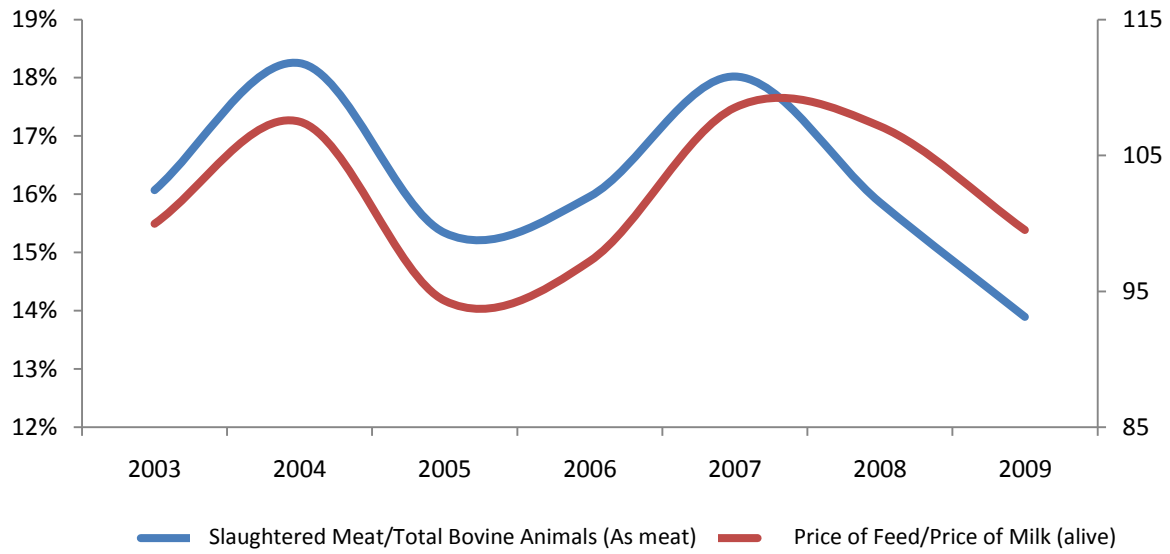
Table 1. Feed, meat and milk prices, meat-milk production and number of animals, annual change, 2004-2009

	Price			Production		Number of animals	
	Feed	Carcass meat	Milk	Red meat	Milk	Total Bovine	Milked Bovine
2004	19%	4%	11%	22%	1%	3%	-23%
2005	-6%	4%	7%	-8%	4%	5%	3%
2006	4%	8%	0%	7%	8%	3%	5%
2007	22%	0%	9%	31%	3%	1%	1%
2008	15%	11%	17%	-16%	-1%	-2%	-3%
2009	-7%	6%	0%	-14%	2%	-1%	1%

Source: TURKSTAT

This mechanism applied also for the price movements by the second half of 2009. Along with the impact of the drought in 2006, feed price rose by 22 percent in 2007. However, despite the elevation in input costs, the increase in milk prices was limited (9 percent). Therefore, milk production ceased to be profitable and the amount of slaughtered animals increased by 31 percent. In 2008 and 2009 red meat production diminished by 16 and 14 percent, respectively.

Figure 2. Red meat production in proportion to feed and milk price parity and total number of bovine animals¹, 2003-2009



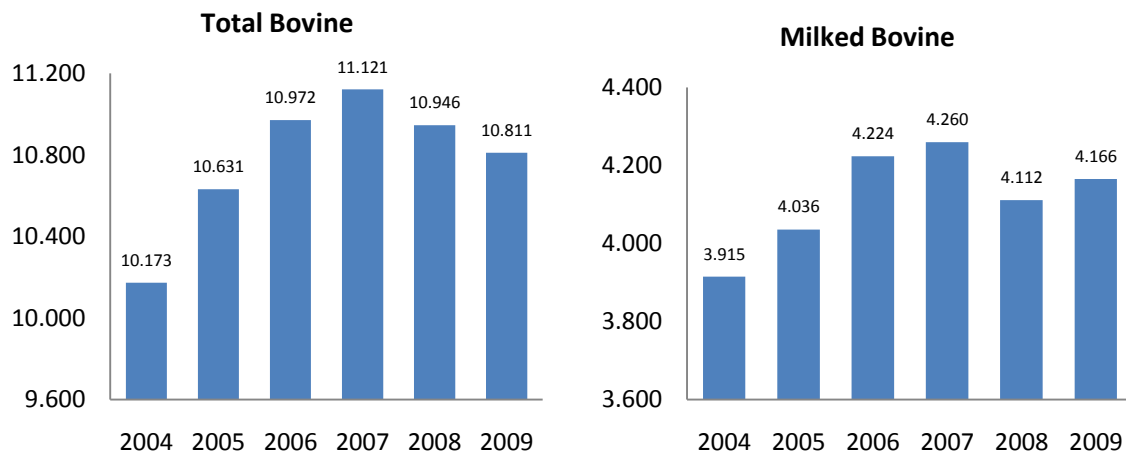
Source: TURKSTAT

This relationship can be traced more clearly in Figure 2. There exists a close relationship between the price parity between feed and milk and the number of bovine animals slaughtered to produce meat. In the period where feed price/milk price parity increased, the proportion of animals slaughtered in total number of bovine animals goes up, and vice versa. With the rise in the proportion of slaughtered animals due to the relatively rapid increase in feed prices, feed/milk price parity turned to drop in 2008 and 2009, leading to a reduction in red meat production.

Number of animals as announced by the TURKSTAT explains why the amount of meat produced drops more rapidly than in the normal course. With the rapid increase in the meat production in 2007, the number of total bovine animal livestock decreased for the first time over a long period. Total number of bovine animals fell by 310 thousand (from 175 thousand in 2008 to 135 thousand in 2009). Particularly in 2008, a significant proportion of the fall in the number of bovine animals stemmed from the fact that breeders decided to slaughter milked animals. In 2009, the number of milked animals tended upwards once again due to the fact that the feed/milk price parity fell down and turned back to normal. This was the second effect that reduced the number of slaughtered animals.

¹ Slaughtered animal/total number of animal ratio has been fluctuating over last years because of the switch from domestic cattle to cultivated cattle. As a result, the number of bovine animals is multiplied with average amount of meet derived from one animal giving the total bovine animal indicator.

Figure 3. Total number of bovine animals and the number of milked bovine animals, 2004-2009



Source: TURKSTAT

The market should be regulated within a foreseeable policy framework in order to prevent a more major crisis in livestock sector

As can be seen, the recent rise in meat prices stems from the inability to control the rise in feed prices in 2007. To put it differently, this development is a result of the dearth of a regulatory mechanism and a long term policy for livestock market. Market failures could not be controlled. Price of milk did not increase in 2007 despite the rise in feed prices due to milk-dried milk imports. As a result, supply of meat increased, which temporarily prevented a rise in meat prices. Nonetheless, due to the absence of a sector policy number of animals eventually dropped and prices tended to go up by the second half of 2009 depending on the supply shortages.

Recent efforts to hold down meat prices by allowing meat imports also provide short term solutions and keep the ambiguities about policy intact. Before making such decisions, dynamics and pricing mechanisms in red meat, milk, feed, and even in white meat sectors must be reviewed carefully. It must be noted that with a mechanism where prices of meat and milk remains constant or drops while feed prices increase, number of livestock animals can drop gradually, which might in turn intensify import dependence in meat and milk markets. This is why Meat and Fish Authority, when executing the authority to import must consider not only how meat prices can be reduced but also how the future of the livestock market shall be. It is of great importance to design a livestock sector policy, which will regulate all markets and involve balancing mechanisms to employ in case of distortions in pricing.