# Analysis of the red meat price changes over the last 25 years and effects of import decisions in Turkey

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Abstract: In this study, it is aimed to determine and examine the change occurring in red meat prices in Turkey over time within the framework of important economic events, as well as import decisions of slaughtered animals and red meat. The figures concerning livestock and red meat import for the year 2010 in Turkey, wholesale prices of red meat, livestock, and concentrated fattening breeding feed occurring in the period between the years of 1985 and 2010, the data relating to Wholesale Price Index-Producer Price Index have constituted the material of the research. It was determined that Turkey imported around 100.500 tons of red meat until December of the year 2010. While the mutton price is fluctuating in the range of 1.69 TL (1.13 US\$) in real terms over the average prices between the years of 2003 and 2008, in 2009 it increased at the rate of 51.4% compared to 2008 but in 2010 it increased at the rate of 68.5% compared to 2008. On the other hand, whilst the annual average beef price in real terms is fluctuating in the range of 1.26 TL (0.84 US\$) between the years of 2003 and 2009, only in 2010 it increased at the rate of 37.0% compared to 2009. Finally, not taking timely political measures for removing the economic crises and their effects undergone over years has affected the livestock sector negatively and this has resulted in decreases and withdrawals from production. During the recent periods, the instability in the prices of livestock and red meat and the increased financial risk has had a negative impact on the producers' expectations and objectives. It is considered that ensuring the stability in the red meat prices in Turkey and ceasing the red meat import may be achieved on medium and long terms only if rational livestock policy measures are taken rapidly with the participation of sector stakeholders.

**Key words:** Fattening feed, import, livestock, price, red meat, Turkey

# Introduction

A large proportion of animal production in Turkey is conducted by small sized enterprises, which lack knowledge on quality and price formation and perform animal husbandry generally in accordance with traditional procedures without economic awareness. The traditional and irrational structure of these enterprises weakens the power of bargaining of producers. Animal and animal product prices are constituted in an oligopsony market where large number of unorganized producers and a limited number of buyers, who cooperate especially with regards to prices, come together (1,2,7).

In addition to fattening material, feed, and labor and similar input costs, factors such as the change in animal availability according to animal species, prices of substitute products (mutton-goat meat, beef), status of imports and exports, the presence of government intervention, animal husbandry support, interest rates, instability in milk prices, consumer demand, consumer preferences, and purchasing power can have a direct or indirect impact at various levels on the formation of red meat prices in Turkey (5).

During the period covering 2009-2010 in Turkey, as a result of the animal husbandry policies of many years and the structural problems of animal husbandry, real increases were experienced first in mutton-goat meat and then beef prices. Decision makers attempted to balance increasing red meat prices through importing.

The present study aims to examine the changes in red meat prices in Turkey in respect of years (1985-2010) and months (January 2006-November 2010) by means of the Wholesale Price Index (WPI, 1985-2004) and the Producer Price Index (PPI, 2005-2010) within the framework of significant economic events and livestock and red meat importing decisions.

#### **Material and Method**

The material of the study is constituted of data pertaining to figures of livestock and red meat imports in Turkey in 2010, total price of red meat and livestock sales in the period between the years 1985-2010, total price of concentrate fattening feed sales in the same period (excluding VAT, cash sale price), and WPI (1985-2004)- PPI (2005-2010) (3,4,6,8,9,11). The average foreign exchange rate for 2010 is 1 US\$= 1.50 TL.

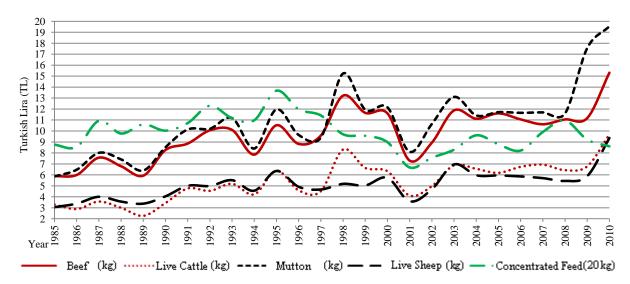
By utilizing the WPI and PPI of that period, current prices of livestock, red meat, and concentrate fattening feed have been converted to real prices as net of the impact of inflation and the changes in the monetary purchasing power realized in that period.

The price series converted to real prices according to WPI-PPI have been examined and interpreted through graphs prepared by taking into account the changes experienced

annually between 1985-2010 and monthly between January 2006-November 2010, significant economic events, and decisions to import livestock and red meat.

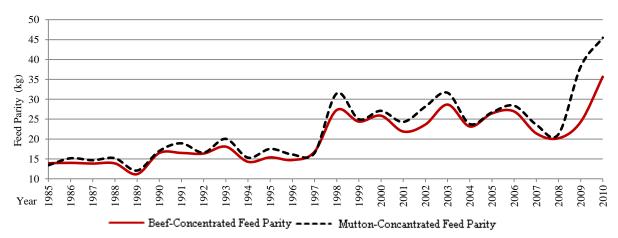
# **Findings**

Together with the decision on importing livestock and red meat into Turkey recently, it has been calculated that between April of 2010 and December of 2010 a total 100,500 tons (including those obtained from butchery animals) carcass meat has been imported. According to the data of the Turkish Statistics Institute, in 2009 Turkey's total red meat production in one year is 412,621 tons (10). The total amount of red meat imported during this period corresponds to 24.36% of the total red meat production of Turkey.



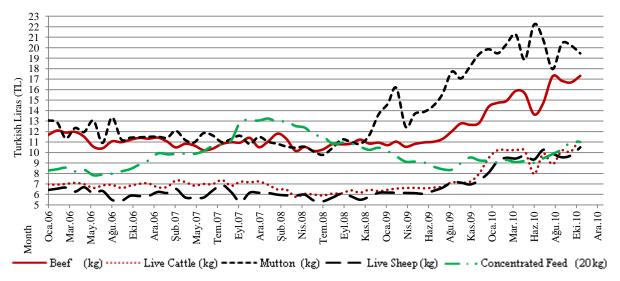
**Figure 1.** Real prices of beef, cattle, mutton, sheep and concentrated feed according to the wholesale price index-producer price index between 1985-2010 years in Turkey.

In Figure 1, it can be observed that even though until 2008 mutton and beef prices have proceeded on a course that is in parallel with each other, as of 2008 mutton prices have diverted from beef prices. Furthermore, it has been determined that in the period between 1985-2010, according to the WPI-PPI, beef prices have increased by 160.48%, live cattle prices by 194.04%, mutton prices by 233.84%, and live sheep prices by 206.51% and even though concentrated feed prices have proceeded on a fluctuating course, they have decreased by 1.68%.



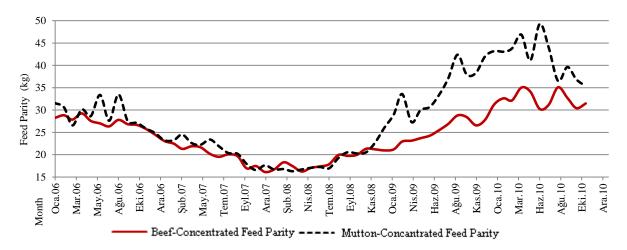
**Figure 2.** Concentrated feed parity of beef and mutton over current prices in Turkey between 1985-2010 years.

As it can be observed in Figure 2, whilst it was possible to purchase 13.9 kg and 13.4 kg of concentrate fattening feed with 1 kg beef and mutton respectively, in 2010 it was possible to purchase 35.6 kg and 45.5 kg respectively. In other words, in comparison to 1985, over current prices in 2010, the beef –concentrated feed parity increased by 156.01% and the mutton-concentrated feed parity increased by 239.55%.



**Figure 3.** Real prices of beef, cattle, mutton, sheep and concentrated feed according to the producer price index in Turkey of between January 2006 and November 2010.

In Figure 3, according to PPI, in the period between January 2006 and November of 2010, it has been determined that beef prices have increased by 48.31%, live cattle prices by 65.14%, mutton prices by 48.90%, live sheep prices by 63.42%, and concentrated feed prices by 32.95%.



**Figure 4.** Concentrated feed parity of beef and mutton over current prices in Turkey for the period of between January 2006 and November 2010.

As it can be observed in Figure 4, whilst it was possible to purchase 28.2 kg and 31.6 kg of concentrate fattening feed with 1 kg of beef and 1 kg of mutton respectively in January of 2006, in November of 2010 it was possible to purchase 31.5 kg and 35.4 kg of concentrate fattening feed with 1 kg of beef and 1 kg of mutton respectively. In other words, over current prices, during this period the beef-concentrated feed parity increased by 11.55% and the mutton-concentrated feed parity increased by 12.00%.

# **Discussion and Conclusion**

The Turkish animal husbandry industry has been under the pressure of importing at a significant rate since the mid 1980's and with the concessions made importing has continued with zero customs duty until 1991 and with partial balancing through funds in the following years. By 1995, Turkey was categorized as a country where low quality products were exported to and for the first time in the Republic Era, the importing of fillet was permitted. With the Mad Cow Disease (BSE) appearing in March 1996, the demand of the Turkish public for red meat decreased and in addition to this health issue experienced in the international arena having an adverse impact on the animal husbandry industry, it also caused the termination of red meat imports (2).

In the years 1996 and 1997 when the Mad Cow Disease appeared as a problem on the international arena, due to decreasing demand for beef, real prices of livestock and red meat dropped. With the impact of the disease, the import of red meat in Turkey stopped and it was observed that as a result of the decrease in the total domestic supply of red meat, in 1998 real prices of livestock and red meat increased.

From 1997 to 2010 in Turkey, except for breeding animals, the import of butchery animals and red meat was not performed. In the last 2 years, as a result of the animal

husbandry policies implemented for many years and the structural problems of animal husbandry, real increases have occurred first in mutton-goat meat prices and then in beef prices.

According to the findings of the study, it can be observed that beef and mutton prices proceeded on a parallel course with each other from 1985 to 2008 and the price difference between them did not exceed a certain level. However, the price balance between beef and mutton was destabilized as of 2008 with the higher real price increases in mutton compared to beef.

Over average prices, between the years of 2003 and 2008 real prices of mutton fluctuated in a 1.69 TL (11.42-13.11 TL) interval and in 2009 it demonstrated an increase of 5.96 TL (51.40%) compared to 2008, and in 2010 it demonstrated an increase of 7.95 TL (%68.54) compared to 2008. On the other hand, between the years of 2003 and 2008 real prices of beef fluctuated in a 1.26 TL (10.62-11.88 TL) interval and only in 2010 it demonstrated an increase of 4.14 TL (37.02%) compared to 2009.

As a conclusion, the economic crises experienced and industry specific policy changes (such as the decision to import butchery animals and red meat) over the years has caused unease amongst groups engaged in animal husbandry. The financial risk that has increased as a result of the instability in livestock and red meat prices has had an adverse impact on the objectives and expectations of stockbreeders concerning production.

Within this scope, in the medium and long term, with support and incentives for breeding animal enterprises, the increase of fattening feed production can be targeted. The reduction of producer input costs, primarily feed and fattening material and increase in production and efficiency can be considered to naturally lead to animal husbandry enterprises adopting rational policies oriented at size and investment and the termination of import policies being implemented.

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