AN EVALUATION OF LIVESTOCK (CATTLE) INSURANCE IN TURKEY

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Abstract

In Turkey, Agricultural Insurance Foundation was established in 1995. Agricultural insurance pool (TARSIM) formed with the contributions of private agencies and organizations which have run activity in the fields of insurance and agriculture and the government support began its activities in 2006. The livestock (cattle) insurance, which is a part of agricultural insurance, has been practiced in the country since 1960. The aim of this study was to investigate the role and the functioning of livestock (cattle) insurance in Turkey between 2007 and 2015. According to the research findings, the share of the cattle insurance in the total number of agricultural insurance policies is 1.94% in 2015. This result showed that its necessity of increases of the livestock (cattle) insurance in agricultural sector considering farmers' financial position and the size of their farms.

Key words: *agriculture, cattle, farmers, livestock insurance, Turkey*

1. INTRODUCTION

Agriculture is regarded as a major sector for food need, employment and development of countries. Furthermore, livestock is also an important part of agricultural sector. Livestock sector especially provides employment opportunity and cash flow for household living in rural area (Schaik et al., 1996; Jabir, 2007). However, it isn't so easy for farmers to obtain income from livestock sector. Because, agricultural sector by one's nature is faced with more risk and uncertainties than other sector in terms of natural, social and economic. These risks cause important losses in income of the producers. Therefore, farmers have to take some precautions to protect from risks and to increase their income. Agricultural insurances is one of the most important of these precautions. Because, the aim of agricultural insurances is provided financial support to farmers in insurance coverage in the event of failure regarding production as a result of some risks such as natural disasters, diseases, die of animals etc (Lall et al. 2011).

Agricultural insurance implementations are conducted via public, private sector, public-private sector collaboration in the world. Besides, private and public-private sector collaboration are mainly adopted in the implementation of agricultural insurance in the world's countries (Mahul and Stutley, 2010; Farayola et al., 2013).

The implementations of agricultural insurance in Turkey began with private insurance companies, first of all. The first insurance contract was implemented to protect against hail risk to crop products in 1957. This was followed by livestock (cattle) insurance in 1960, poultry insurance in 1984 and aquaculture insurance in 1990, respectively. Agriculture Insurance Foundation was established for the implementation in a common system of agriculture insurances in 1995. This foundation gave support to insurance companies operating in branch of agricultural insurance by collaborating with some institutions and organizations until the agricultural insurance enacted. The implementation of agricultural insurance was conducted for the only risk by private sector from 1957 to 2005.

The agricultural insurance law no 5363 was enacted in 2005. The state supported agricultural insurance pool (TARSIM) was established and began its activities in 2006 (Terin and Aksoy, 2015; TARSIM, 2015). This pool is public-private partnership involving government (Ministry of Food, Agriculture and Livestock, and Undersecretariat of the Treasury), non-governmental organizations (Union of Turkish Agricultural Chambers and Insurance Association of Turkey) and private sector (private insurance companies). This pool is responsible for determining standard rates related to products, premium collection, loss assessment and reinsurance arrangements. Besides, the government

provides a wide range of support within the scope of agricultural insurance pool such as determine to the roles of public and private sector, agricultural insurance premium subsidies that are fixed at 50% of the premium cost (pays 50% of the written premium in the insurance policy by government) and support to the reinsurance programme.

There are various insurance products (crop, greenhouse, cattle, sheep and goats, poultry, aquaculture and beehives) within the scope of the agricultural insurance in Turkey. The livestock (cattle) insurance is also a part of these insurance products (Akinola, 2014; TARSIM, 2015; Colovic et al., 2016). This insurance covers all kinds of animal diseases and pregnancy, delivery or surgery with the exception of rinderpest, tuberculosis, brucellosis, foot and mouth diseases and BSE diseases, and infectious diseases obligatorily reported according to the law on veterinary services, crop health, food and feed (law no 5996). In addition to these implementations, it covers death, obligatory slaughtering and abortion for dairy cattle due to all kinds of accidents, wild animal attack, snake and insect bites, poisonous meadow grasses, poisoning caused by feed, any kind of natural disaster and sunstroke, fire and explosion (TARSIM, 2015).

There are a number of studies examining implementations of agricultural insurance in Turkey. Many of these studies are also based on evaluation of the general structure of agricultural insurances (crop and livestock) (Bora, 2005; Birinci and Tümer, 2006; Ucak and Berk, 2009; Karaca et al., 2010; Gulcubuk and Gunes, 2010). Although there are a great of literature regarding agricultural insurances, there hasn't been run across to a far-reaching research related to assessment of just livestock (cattle) insurance in Turkey. Therefore, the aim of the present study is to investigate the role and the functioning of livestock (cattle) insurance in Turkey between 2007 and 2015.

In the present study, the year of start for data used in the research to make comparison between the years was determined as 2007 because the implementations of state supported agricultural insurance in Turkey started on 1 June 2006. It is expected that the results of the study contribute in terms of emphasizing the importance of livestock (cattle) insurance.

2. THE ECONOMIC DIMENSION OF CATTLE INSURANCE

In Turkey, the livestock (cattle) insurance, which is a part of agricultural insurance, implementations started in 2006. The data related to the number of total agricultural insurance and livestock (cattle) insurance policies are given in Figure 1. As can be seen from Figure 1, there has been regularly increased in the number of total agricultural insurance policies since 2007 when analyzed data between 2007 and 2015. The number of total agricultural insurance policies was 1 375 390 in 2015 (Figure 1). Besides, livestock insurance has been had a tendency to increase compared to the previous year in the number of cattle insurance policy in some years since 2006. All these results indicate that the government supported agricultural insurance system plays an important role in increasing total agricultural insurance and livestock (cattle) increase.

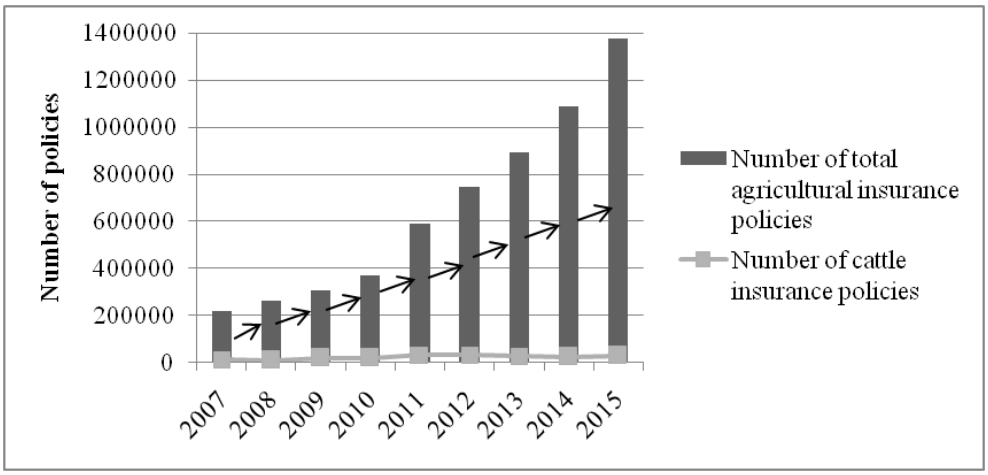


Figure 1. The number of livestock (cattle) insurance policies between 2007 and 2015

As can be seen from Figure 1, the highest increase in the number of total agricultural insurance policy and in the number of livestock (cattle) insurance policy was observed in 2011 (58.4%) and in 2009 (120%), respectively. Additionally, the number of total agricultural insurance policy was 26 852 in 2011 and the number of cattle insurance policy was 17 806 in 2009. Moreover, the number of cattle insurance policy increased by 163.4% during 2007-2015. The highest increase in the number of cattle insurance policies within the number of agricultural insurance policies was in the period 2008-2009. The rate of increase is 5.8%. In 2015 compared with 2014, the number of cattle insurance policy increased by 26.6%. In the same year, the share of cattle insurance in the total number of agricultural insurance policies is 1.94%.

The number of total insured livestock (cattle) in Turkey are given in Figure 2. While the number of total insured livestock (cattle) was 54 499 head in 2007, it increased to 464 607 head in 2015. As can be seen from Figure 2, the number of total insured cattle has regularly increased since 2007. Also, the number of total insured cattle increased by 32% during 2007-2008 and did not change significantly during 2014-2015. The highest increase in the number of insured livestock (cattle) was in the period 2008-2009 (91.7%).

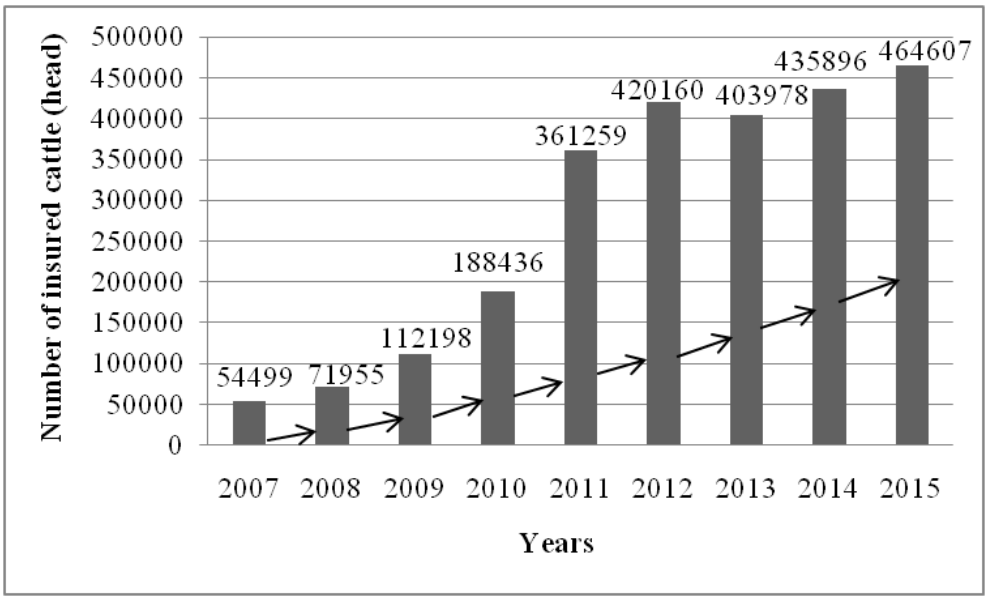


Figure 2. The number of insured livestock (cattle) in the period 2007-2015

The number of total insured livestock (cattle) in some provinces are given in Figure 3. As can be seen from Figure 3, the number of insured livestock (cattle) in İzmir province was 7630 head in 2007 and reached 31 594 head in 2015 by regularly increasing during 2007-2015 (Figure 3). While the number of insured livestock (cattle) in Konya province was 1 635 head in 2007, it increased to 53 430 head in 2015.

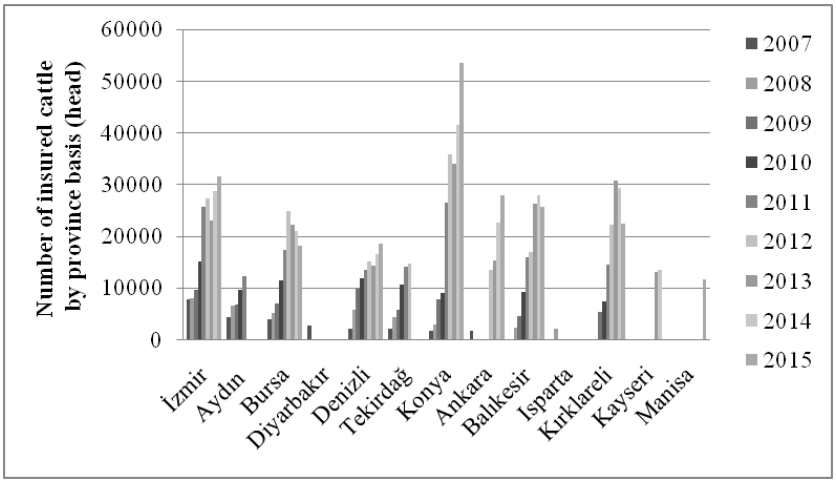


Figure 3. The number of insured cattle by province in the period 2007-2015

Additionally, while the number of insured livestock (cattle) in Bursa province was 3 815 head in 2007, it increased to 18 120 head in 2015. Moreover, while the number of insured livestock (cattle) in Denizli province was 2 071 head in 2007, it increased to 18 584 head in 2015. As can be seen from Figure 3, the number of insured livestock (cattle) has increased by province since 2007.

The rate of number of insured livestock (cattle) by province is presented in Figure 4. With 14% in 2007, İzmir province had the highest number of insured livestock (cattle). It was followed by İzmir with 11% in 2008, Denizli with 8.7% in 2009, İzmir with 8.0% in 2010, respectively. Besides, Konya province had the highest number of insured livestock in 2011 (7.3%), in 2012 (8.5%), in 2013 (8.4%) and in 2014 (9.5%), respectively. In 2015, Konya province was followed by İzmir with 6.8%, Ankara with 6.0%, Balıkesir with 5.5% and Kırklareli with 4.8% (Figure 4). Therefore, it is concluded that the highest of the number of insured livestock (cattle) were İzmir, Denizli and Konya in the period 2007-2015.

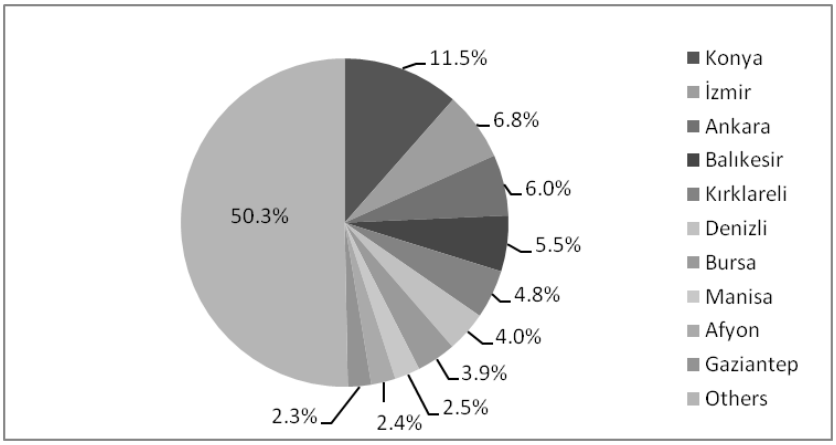


Figure 4. The rate of number of insured livestock (cattle) by province in 2015

The sum insured in Turkey in the period 2007-2015 is given in Figure 5. While total sum insured was about 1 billion TL in 2007, it increased to about 18 billion TL in 2015. Total sum insured increased by 50.5% in 2008 compared to 2007 and by 32.3% in 2015 compared to 2014. Also, while the sum insured for livestock (cattle) was about 168 million TL in 2007, it increased to about 2 billion TL in 2015. The sum insured increased by 57.1% in 2008 compared to 2007 and by 30% in 2015 compared to in 2014.

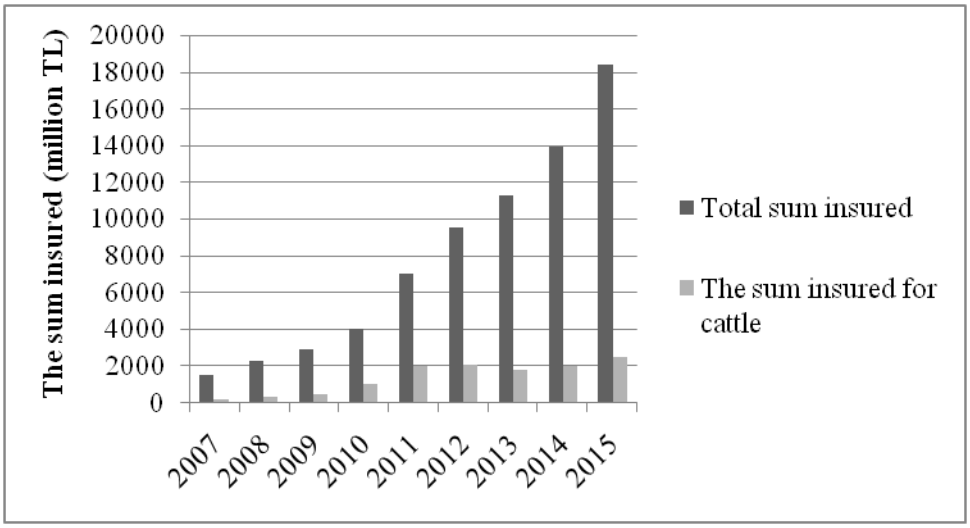


Figure 5. The sum insured in Turkey in the period 2007-2015

As can be seen from Figure 5, the sum insured for livestock (cattle) insurance has regularly increased since 2007. The share of sum insured for livestock (cattle) within total sum insured was 13.5% in 2015. In the period 2007-2015, the highest sum insured for livestock (cattle) insurance was in 2011. Furthermore, Konya province had the highest of the sum insured for livestock (cattle) insurance in 2015. It was followed by Konya with 11.9%, İzmir with 7.3%, Balıkesir with 6.2% and Kırklareli 4.9%, respectively. Moreover, while İzmir province had the highest of the sum insured for livestock (cattle) insurance in the period 2007-2009, it was Konya province in the period 2010-2015.

The amount of compensation paid in the period 2007-2015 is presented in Figure 6. As can be seen from Figure 6, the amounts of compensation paid within the scope of livestock (cattle) insurance showed a change according to the occurrence situations of risk factors between 2007 and 2015. While the amount of compensation paid within the scope of livestock (cattle) insurance was about 2 million TL in 2007, it increased about 97 million TL in 2015. Additionally, the amount of compensation for total agricultural insurance in Turkey was about 724 million TL in 2015 (Figure 6).

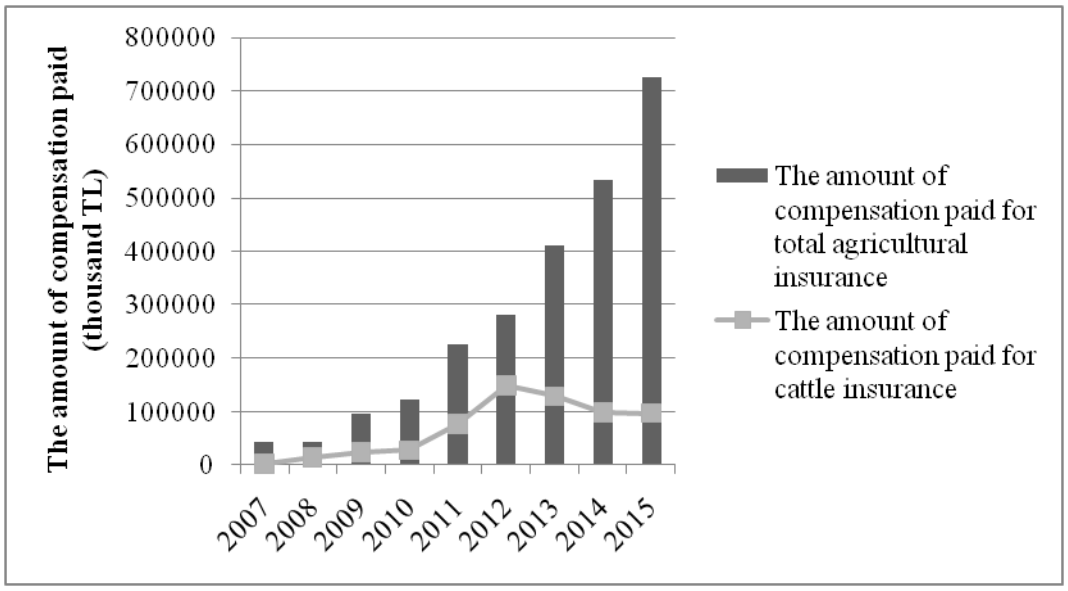


Figure 6. The amount of compensation paid in the period 2007-2015

Furthermore, the share of the compensation amount paid within the scope of livestock (cattle) insurance was 13.4% in 2015. The highest compensation amount paid was in 2012. The rate of its was also 53.2%. As can be seen from Figure 6, the amount of compensation paid within the scope of livestock (cattle) insurance increased during 2007-2013 and then decreased during 2014-2015. Furthermore, the reasons of losses within the scope of livestock (cattle) insurance between 2007 and 2015 were emergency slaughter, death, baby death and abortion. Death and emergency slaughter have higher share within type of losses within the scope of livestock (cattle) insurance during 2007-2015. Besides, the losses paid in livestock (cattle) insurance compose of death (54.8%), emergency slaughter (32.2%), calf death (6.8%) and abortion (6.2%) in 2015.

3. CONCLUSION

In the present study, the role and the functioning of livestock (cattle) insurance in Turkey were evaluated. Livestock sector is an important part of agricultural sector and is is exposed to risks such as diseases and death. Thus, livestock (cattle) insurance can be expected to be effective in the development of livestock sector.

Livestock (cattle) insurance has shown a tendency to increase despite decrease compare to the previous year in the number of livestock (cattle) insurance policy for some years since 2007. However, the share of this increase in total agricultural insurance is rather low. The reasons of losses within the scope of livestock (cattle) insurance were emergency slaughter, calf death and abortion. Also, death and emergency slaughter have higher share in these losses.

Based on the research results and theoretical explanations above, it can be said that the applications of livestock (cattle) insurance haven't reached yet the desired levels depending on the development of agricultural insurance in Turkey in recent years. It is expected that determination according to farmers' agricultural income levels in region of insurance premium prices calculated within the scope of the state supported livestock (cattle) insurance have an effect on tendency to livestock (cattle) insurance of farmers. Besides, it should be provided to extend of education and promotional activities that are conducted by public and private sector for farmers' consciousness raising in relation to cattle insurance and for inform of farmers' about the state supported cattle insurance applications.

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