

**AGRICULTURAL INSURANCES - GROWTH FACTOR FOR THE  
STABILITY OF THE AGRICULTURAL PRODUCTION.  
AGRICULTURAL INSURANCE SCHEMES IN SOME EUROPEAN  
UNION MEMBER STATES**

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**Abstract**

*It is widely known that in the last years, the climate changes have had a great impact in the crop yield. For agriculture, the challenge is that, at international level, the food production will have to be double in order to feed 9 billion people – the estimated world population by 2050. In this context, the setting up of proper risk management systems in agriculture becomes an extremely important operation. This paper has tried to analyse the agricultural insurance systems existent in several European Union member states, taking into account that the EU is one of the biggest exporters of agricultural produce in the world, due to a strong agri-food industry and to the importance given to the implementation of new instruments for the management of risks connected to the agricultural activity.*

**Key words:** risk management, agricultural insurance systems, premium subsidies, public-private- partnership.

**JEL classification:** Q11,Q12, R130

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## **1. Introduction**

Agriculture represents an important growth factor, especially in the developing countries. In the Third Millennium, in the global context resulted from the climate changes, should not ignore the fact that 70 % of the poor population of the world live in rural areas and that the development of the agricultural sector, meaning its productivity growth, is one of the key factors of ensuring the food safety.

The most important problem for agriculture at the beginning of this millennium is that the climate changes caused by the global warming will lead to the decrease of agricultural productivity, and to the disappearance of some types of foods [1].

Many authors consider that climate changes will increase the risk of diminishing the productivity of crops as the result of heat and drought. The negative impact on the average production will be seen clearly until 2030. These authors give the example of Brazil where, in some areas, the crop yield for rice and wheat could decrease by 14 % [11].

The farmers will have, of course to face the new challenges and to find more effective ways to manage the related risks, such as:

- Adapting the crops, by creating new plant varieties with higher tolerance to drought, tolerance and salinity;
- Adapting and correlating the planting and sowing periods with the new climate conditions;
- Adapting and correlating the planting and sowing periods with hybrid adjustment;
- Irrigation optimization;
- Fertilization optimization [11].

We can assume that the existence of farms and their owners is always characterized by uncertainty that is typical for this activity taking also into account that many of them depend entirely by the agricultural production to ensure their incomes and to satisfy their basic food needs.

In this extremely complex and sensitive context, among the other risk management methods for agriculture, insurances have become a key element, contributing to the risk management for the agri-food value chain, income stabilization and promoting investments in agriculture.

Insurances are one of the methods to be used by farmers on the emerging markets to move from the subsistence farming to the sustainable farming.

In addition to the agricultural risk management itself, insurances may represent a guarantee to cover loans, thus, funding is available for small farmers also. In addition, on many emerging markets, where the infrastructure is still under-developed, insurances may be used to promote investments in storage facilities, transport, distribution and other logistic services [15].

Insurances may also mitigate the vulnerability to poverty caused by the illness, accident or death of the small farmers and of other persons, the insurers offering the protection of their life and health, by different insurance products adapted to their needs.

The global insurance industry is constantly adapting to the existent problems and may represent an important partner that provides the necessary coverage against different risks threatening the agricultural production and thus contributing to the diminishing of global food insecurity [3].

In this general context, taking into account that in the EU there are approximately 500 million consumers who need a healthy, nutritious and affordable food source, the European Union agriculture will have to face some major challenges such as: competition for water resources, increasing costs caused by the environmental protection policies, competition for international markets, economic and financial crisis, climate changes and their related physical factors, as well as the uncertainties regarding the effectiveness of the European policies.

## **2. Material and method**

In addition to the resource availability, volume of investments in agriculture, government policies, and competition in a market, the climate changes, manifested with a larger intensity in the last years, have a strong influence on agriculture. At the European level, the conclusion it was reached that sustainable agricultural insurance schemes need efforts, but especially investments made by the state, and the public-private partnerships are highly favoured by the farmers, government and insurers. This paper analyses the theoretical aspects of relation between the crop yield - risks related to the agri-

food sector - insurances, based on the statistical data given by the Sigma publication - Swiss Re., Eurostat, Faostat and the report of the European Commission, "Agricultural Insurance Schemes".

## **Results and discussions**

### ***Brief overview of the agricultural performances in the European***

#### ***Union***

Favourable climate, soil fertility, as well as the technical training of the farmers have helped Europe to become one of the most important producers of agricultural produce in the world.

European farming does not refer only to food production. Farmers need machineries, constructions, fuel, fertilizers, and medical care for their animals. Many persons work in upstream sectors, but there are also persons involved in downstream processes, such as food processing, preparation and packing. To all of these, the persons involved in the storage, transport and retail of food products are also added.

It can be said that agriculture and food production are key elements of the European economy and society. In all the EU-28, there are approximately 12.2 million of farmers and other 4 million persons working in the food industry. Agri-food industry covers 7 % of the total number of jobs and has a share of 6 % of the EU GDP [14]. Therefore, the contribution of agriculture to the European economy is important not only as regards the obtained productions, but it is also reflected in the economy and social issues.

Europe is considered a global leader in the production of olive oil, dairy products, meat, wines and spirit drinks.

**Table 1: Olive oil production in the EU largest producing countries, 2000-2013 (thousand ton)**

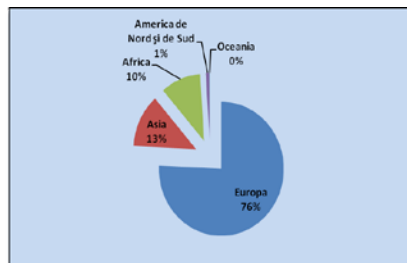
Country	2000	2001	2002	2003	2004	2005	2006
Spain	962.4	1,412.1	836.9	1,449.0	1,009.4	819.4	1,092.6
Italy	507.4	573.5	574.9	600.5	794.5	671.3	603.2
Greece	408.3	302.2	381.6	374.9	321.3	386.3	385.5
	2007	2008	2009	2010	2011	2012	2013
Spain	1,185.9	1,044.7	1,247.3	1,498.5	1,577.5	1,568.5	1,110.0
Italy	574.2	607.0	517.4	526.78	543.0	572.0	442.0
Greece	318.2	328.3	305.0	306.9	298.0	351.1	305.9

Thus, the EU is the largest producer of olive oil at international level, with almost three quarters of the international production. The largest producing countries for olives are Spain, Italy, Greece, Portugal, France, Croatia, Cyprus, Slovenia and Malta (however, 99.5 % of the olive production in EU-28 for 2013 has been concentrated in the first four countries (Tables 1 and 2, Figure 1).

As it may be seen from the table above, production fluctuates from one year to another, one of the causes being, certainly, the influence of the climatic conditions. However, as it can be seen in Table 2 and Figure 1, Europe remains the global leader of the olive oil production, with a share of approximately 76 % of the total production.

**Table 2: Figure 1 - Global production of olive oil, per regions - average for 2000-2013**

No.	Area	Production (tons)	Production (%)
1	Europe	2,184,866.29	76
2	Asia	368,887.79	13
3	Africa	299,256.71	10
4	North and South America	26,127.29	1
5	Oceania	3,601.5	0



In addition, in 2013, the cereal production (including rice) in EU-28 was of approximately 309.5 million ton. This has been the largest production since 2008 and represented approximately one eighth of the global cereal production (based on FAO forecasts), that indicates the EU as the largest global cereal producers (the average for 2000-2008 indicates that the EU occupies the third place in the world, per region, as regards the cereal production).

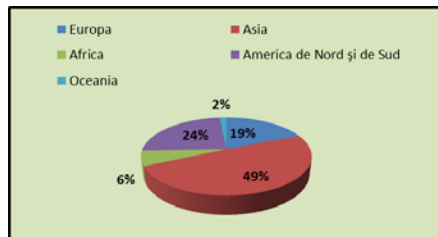
**Table 3: Cereal production in the European Union, 2000-2013**

	2000	2001	2002	2003	2004	2005	2006
Cereals (mil. ton)	280.7	288.6	292.5	254.5	328.8	291.1	272.7
	2007	2008	2009	2010	2011	2012	2013
Cereals (mil. ton)	264.5	319.7	301.1	283.7	294.6	287.0	309.5

Same output fluctuation is also shown in case of cereals, where the climatic factors play a decisive part. However, the large increases in 2004 and 2008 may be explained by the enlargement of the European Union because of the accession of new states. The following fluctuations are for certain influenced by the climatic conditions that have a positive or a negative impact on the cereal production.

**Table 4: Figure 2 - Global production of cereals, per regions - average for 2000-2013**

No	Area	Production (thousand ton)	Production (%)
1	Europe	432,383.48	19
2	Asia	1,137,492.21	49
3	Africa	144,550.47	6
4	North and South America	555,535.49	24
5	Oceania	34,883.50	2



**Table 5: Wine production in the EU large producing countries, 2000-2013 (thousand ton)**

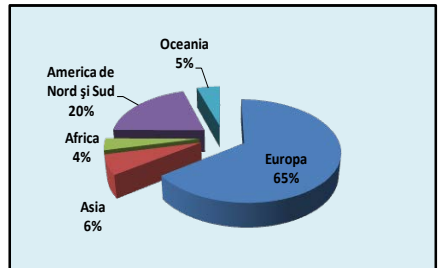
Country	2000	2001	2002	2003	2004	2005	2006
France	5,754.1	5,338.8	5,000.0	4,749.1	5,910.7	5,344.1	5,349.3
Italy	5,408.7	5,229.3	4,460.4	4,408.6	5,313.5	5,056.6	4,963.2
Spain	4,117.3	3,095.1	3,454.0	4,246.2	4,280.4	3,643.7	3,890.7
Country	2007	2008	2009	2010	2011	2012	2013
France	4,711.6	4,268.9	4,679.1	4,531.6	5,106.7	5,286.4	4,136.5
Italy	4,251.3	4,609.5	4,624.5	4,580.0	4,673.4	4,089.0	4,561.6

Spain	3,520.8	3,736.6	3,250.6	3,610.0	3,339.7	3,150.0	3,424.1
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Data from the table above also indicate in case of wine production a pronounced fluctuation in the main European producing countries. In this case, also, the climatic factors play a decisive part, this time manifested notably in the production quality also.

**Table 6: Figure 3 - Global production of wine, per regions - average for 2000-2013**

No.	Area	Production (thousand ton)
1	Europe	17,955.93
2	Asia	1,746.23
3	Africa	1,046.39
4	North and South America	5,552.60
5	Oceania	1,381.22



The livestock production should not be ignored either, where in 2013, in the EU member states, productions of 44.7 ton of meat (out of which, almost half is pork) and 153.8 million ton of milk. EU cheese production was of approximately 9 mil. ton in 2013, and the examples of remarkable results may continue [10].

As regards the size of the agricultural holdings, they are mainly relatively small, the average size being of only 12 ha, and 70 % of the farms have an area of less than 5 ha.

The EU supports the farmers by: Establishment of producers' organizations; Other types of cooperation that may offer the farmers a higher advantage on the market and may increase the profit margin and competitiveness; Organic farming; Contractual relations along the entire food supply chain; Setting-up of mutual funds and insurance schemes that allow the farmers to better face the market instability or the sudden price increase. Risk management instruments may improve the farmers' position in the food supply chain.

2013 Reform offers financial support for the farmers who wish to use these instruments.

### **The approach to agricultural insurance in the EU member states**

During the year, farmers are exposed to different risks, on the one hand related to the market, such as price instability, and, on the other hand, are connected to the non-market, such as the adverse climatic events, pests and diseases.

Among all of these, adverse climatic events are the main responsible for the loss of crop yield, and in case of extreme events (drought and floods), the producers may face the prospect of losing their entire crop.

Thus, especially the climatic risks contribute to the instability of the crop yield, affecting the incomes and welfare of producers. As it can be seen in the previous examples (Tables 1, 3, 5), the effects of this instability are seen at the end in the returns from external trade, with final implications of diminishing the national income and the long-term investment in agricultural production.

In searching of solution for the management of agricultural risk market, the experts agreed on the fact that various insurance scheme are to be proffered to the ad-hoc aids for disasters. Experience indicates that the ad-hoc aids for disasters are often contra-productive because they encourage the farmers to neglect their responsibility in managing their own business risk [12].

Conversely, agricultural insurance can contribute to improving the productivity of agriculture, through helping the producers invest in more productive agricultural practices and representing an important method of ensuring the long-term stability [2].

The setting up of these agricultural insurance schemes is decisive for the food safety of population, for the economic stability of the farmers and, finally, for the national economies. The European Union states have adopted different agricultural insurance schemes in which the state plays a more or less important part, as the case may be. For example, the 2003 drought caused losses for the German agriculture of approximately EUR 1.3 billion. The affected farms were forced to bear alone the damages, because the ad-hoc aids of the Government were very low: according to the statements of the Association of the German Farmers, the aids totalized EUR 72 million,



representing less than 6 % of the real damages. In Germany, there is no crop insurance scheme based on Public-Private-Partnership [13].

It is true that the "normal" settlement process of increasing the prices, in case of a poor harvest, has diminished losses for the most farmers in 2003, but, at the same time, it has increased the price of products. Because it is known that there are increasingly more factors that have no connection with the amount of regional production and that affect the high volatility of prices, the fact that it is not necessary that a poor harvest to be settled by high production prices.

In 2006, the situation in Poland was similar with that in 2003, in Germany. The extreme spring and summer drought has caused damages in agriculture of approximately EUR 600-700 million. The ad-hoc compensation payments made by the Polish Government represented only a small part of the real financial loss. As a result, the Polish Government took into consideration a new approach to this problem and cooperates with the agricultural associations, insurance industry and the universities, adopting in 2006 a law on promoting the agricultural insurance. With this law, the state suggests subsidies for the insurance premium of up to 50 % and it establishes the fundamental regulations for the involvement of Government in insuring the crops as a Public-Private-Partnership.

Because of the increase of production specialization, the influence of natural risks on the results of the crop yield has increased constantly. In addition, there are numerous scientific studies that indicate that the climate changes around the world have an increasing impact on the occurrence of extreme events, such as: heavy rainfall, periods of heat, drought and storms. Thus, the events related to big storms - such as hail, lightning, heavy rainfall - are more frequent in the last years in Germany and Switzerland.

Thus, in 2009, the insurance companies in Bavaria have faced to a high level of compensation for hail, compared to that experienced in 1993. In Switzerland, there were also many damages caused by hail. It should be noted that in both countries, these several hail events represented an important part of the global loss. Another example is Italy, where in 2009, a collapse of the crop insurance market occurred. The insurance premiums for crops such as: vines, fruits or vegetables accounted for up to 20 % of the insured amounts. That is why the Italian farmers could afford only an insurance corresponding

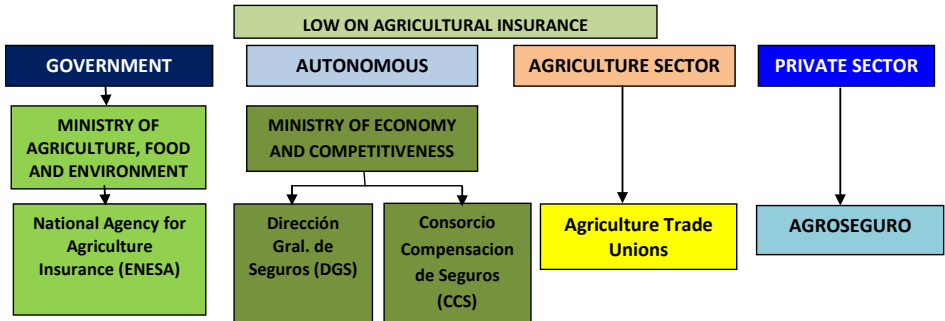
to a deduction of 10-30 % of the insured amount, with government grants of up to 80 % of the premium. Therefore, in 2009, farmers have insured considerably less areas against natural hazards (especially frost that causes important damages to vineyards and orchards). In Italy, the subsidy share is of 64 % of the total premium and the same share is typical to the multi-hazard crop insurance.

Experience has shown that subsidies for premiums, used for long periods of time, are a crucial prerequisite for the stability and sustainability of a crop insurance scheme, and a wise government should adopt an integrated agricultural policy, connecting premium subsidies to other risk management instruments. For example, in USA, the removal of premium subsidies for crop insurance is a prerequisite for their inclusion in other state-funded risk management program [2].

In case that the crop insurance scheme operates within an insurance pool, things are different, because in this case, the central role is played by the respective pool. This is the case of Spain, where the insurance companies distributes insurance policies within the AGROSEGURO insurance pool. This pool collects premiums for the participant companies and collaborates with the Ministry of Agriculture, controlling all the important insurance processes: product development, defining the insurance conditions, the insured amounts for different crops, as well as loss adjustment (Figure 4).

The success of Spanish pool for agricultural insurance, Agroseguero, was ensured by: voluntary participation in the system, on the one hand by the farmers, and on the other hand, by the insurers that joined the pool; the use of insurance techniques; involvement of government and private institutions; Subsidies of the central government and autonomous regions.

Figure 4 - Actors involved in the Spanish agricultural insurance system



Source: C/ Gobelas, 23 – 28023 Madrid, www.agroseguro.es

Nowadays, 29 insurance companies participate in this pool, taking the same share of risks as the equity participation in Agroseguro. Risks cover crop production, aquaculture and forestry.

Table 7: Evolution of the main indicators of Agroseguro activity

	1980	1990	2000	2010	2012
<b>Insured capital (mil. €)</b>	22.17	2,492.60	5,783.43	11,071.20	11,210.00
<b>Net premiums (mil. €)</b>	1.15	103.29	280.94	650.52	675.29
<b>Subsidies (mil. €)</b>	0.59	74.29	178.16	405.82	386.47
<b>Number of policies</b>	2,204	279,404	367,147	485,008	484,482
<b>Receivables (mil. €)</b>	0.26	135.62	163.40	554.01	800.25

Source: C/ Gobelas, 23 – 28023 Madrid, www.agroseguro.es

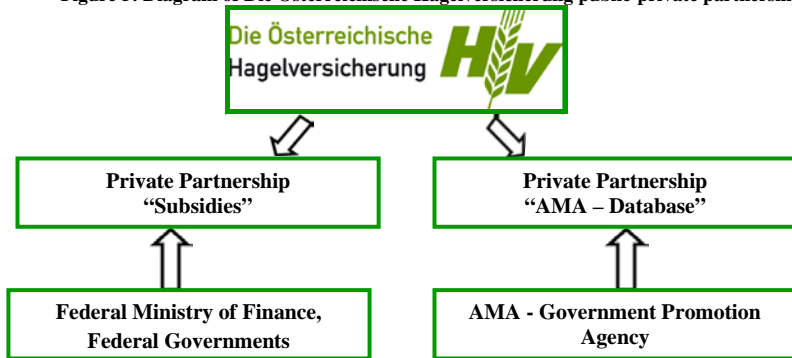
The advantages are both for the public administration (government), for insurers, and for the farmers, the great advantage for the farmers being that they can invest more in their land, because they are better protected against the unpredicted weather conditions.

In **Austria**, Die Österreichische Hagelversicherung, a mutual insurance company, is not focused on profit gaining. The company has 80 employees, 35 independent consultants for farmers and sales represent ants, as well as 235 independent damage specialists. It also operates on the markets of

Czech Republic, Hungary and Slovak Republic. Sales are performed by the insurance companies and brokers.

In 2010, in Austria, the area insured against hail represent 80 % of the total agricultural land. 72 % of the vineyard area are also insured. The area insured against multiple risks represents 70 % of the total area. The value of insured premiums is of €87.7 million, and the insured amount is of €2.7 million.

Figure 5: Diagram of Die Österreichische Hagelversicherung public-private partnership



Source: Public-Private Partnership in Austrian insurance industry, June 17, 2011, Christina Wuehrer/www.vvo.at

In this partnership, government participates with subsidies, meaning the diminishing of insurance premium for hail and frost. Government Promotion Agency (AMA) holds a database with information regarding agricultural lands and farmers' animals.

The share of subsidies in the total of premiums is of 46%, including the regional subventions, and 50 % against frost and hail.

**France.** The French agricultural industry is dominated by the diversity of production, at the national level, and the high degree of regional specialization. The main climate risks are frost, hail and drought. The main climate risks are frost and hail, affecting mainly vineyards and orchids, as well as hail and drought, causing crop failures especially to perennial crops (mainly cereals). In order to stabilize farmers' incomes, France has established an

agricultural insurance system covering climate risks, classifying risks in two main categories: insurable and non-insurable [4].

The insurable risks are insured on the private markets, without the government intervention (or a very small one), while the non-insurable risks are covered by the Public Guarantee Fund, Fonds National de Garantie Calamités Agricoles (FNGCA), established by law in 1964. The covering public and private funds coexist, without competing with each other.

On the private market, the hail risk is mainly insured, without government support.

After many years of existence and operation, taking into account the new agricultural policy, and the challenges for the agriculture because of the climate changes, the French agricultural insurance system was deeply reformed in the last years. The 2005 Reform was aimed at the extension of the set of insurable risks, and of risks covered by the private insurers, respectively. In addition, for the first time, subsidies were implemented on a large scale, in order to stimulate, on the one hand, the farmers demand, and, on the other hand, to determine the private insurers to extend their portfolio with a larger number of risks. Contract subsidizing is aimed to the cereal-producing farmers, covering against multiple risks, as it happens in the United States of America.

The MPC (multi-peril crop insurance) system, implemented in 2005, protects against the crop losses, allowing the producers to insure a certain part of the historical yields. At the beginning, the premium subsidies were of maximum 35 %, but, in 2010, France has decided to use the recently possibility offered by the European Union to increase subsidies to maximum 65 % of the premiums paid to the farmers. As regards these subsidies, 75 % are covered by the European Union, and 25 % of the amount is supplied by the French Government.

In 2011, there were 77,000 insurance policies covering 4.5 mil. ha (less than 30 % of the arable land). The related amount of premiums was of EUR 216 million, including subsidies: EUR 71 mil. from the EU, and EUR 19 mil. from the government. The compensations paid were of EUR 235 mil. Between 2005 and 2012, the French Government has allocated an annual budget ceiling of EUR 133 mil. (€100 mil. from the EU and €33 mil. from France) [6].

It can be said that, after several years of existence, the participation in this system is not negligible, but it is still limited, and that is why French people consider that the Public-Private-Partnership has to be strengthened, and the three partners: government, farmers and insurers, has to strengthen its own commitments.

In 2014, the French Ministry of Agriculture announced the implementation of a new "basic contract" for all farmers.

The objective of this new "basic contract" is to offer compensation more for production costs and less for the farmer's incomes. The amount of compensation could offer them the possibility to begin a new production cycle in spite of the losses caused by extreme weather events. This new insurance policy will be accessible to the most of farmers. As regards funding, the government will cover a part of the "basic" contract, and the farmer will be able to choose to subscribe for a complementary insurance for full coverage[16].

Denmark is a country with an important agricultural insurance market, therefore, 85 % of the total farmland are covered. In order for the government to contribute to insurances, Denmark compels the farmers to participate in a catastrophic damage fund compensating any damages in case of adverse events.

A similar example is also **Bulgaria**, where the agricultural insurances are widely spread on the market, but they are not mandatory. Instead, one of the requirements related to the obtaining of government agricultural subsidy is owning a proper insurance policy. This is also the case of **Poland**, where farmers are compelled to conclude insurance policies in order to use EU-funded agricultural subsidy [7].

In **Hungary**, subsidization of insurance premium has an important impact on the development of agricultural insurance. Beginning with 2004, the government has decided to suspend the premium subsidy previously supported, and this decision affected not only the farmers, with an increase of total risks, but also the insurers, with a significant decrease of profits. In these circumstances, Hungary has taken a wise decision, namely to develop an agricultural insurance system, similar to the Spanish one.

### **Romanian agriculture and the approach to the agricultural insurances**

Agriculture is an important part of the Romanian economy. Even if the Romanian crop yield is not similar to that of countries with a strongly developed agriculture, it can be said that agriculture has had a remarkable evolution in the last years. To this evolution, the 2003-2013 European funding of EUR 15 billion has had a special contribution.

Even if the yields are not always the best, as regards the areas under the main crops, Romania is ranked among the top countries: 4th place in terms of wheat, 1st place for corn and sunflower (for sunflowers, in 2013, it also occupied the 1st place as regards production).

In 2013, agriculture, forestry and fishing contributed to GDP with 5.6 %, and together with food industry (6.2 %), they summed up 11.8 %.

As regards the GDP use, in 2013, the GDP increase was mainly a result of net exports, an important contribution being that of food product exports, amounting more than EUR 5.09 billion. Year 2013 has ended with extra almost EUR 325 million to the trade balance for this industry, the first surplus in the last 20 years, according to the data of the Ministry of Agriculture and Rural Development (MARD).

Taking into account the importance of agriculture for the Romanian agriculture and the fact the climate risks are increasingly present and more aggressive across the entire country, most of the damages resulting from hail, heavy rain and storms, the agricultural insurance have become more and more important.

Nowadays, the agricultural insurances are concluded mainly by large farmers, but 40 % of the agricultural land are owned by small producers involved in subsistence farming, and they do not have a special interest in insurance products.

There are no official statistics regarding the insured areas, but Mr Bogdan PÎRVU, the general manager of FATA Asigurări, estimates that only 25-30 % of the cultivated area in Romania are also insured. In general, the large farmers conclude crop insurance year after year. Many of them have accessed bank loans in view of development, and banks compel them to insure their crops or animals [5].

Although the number of agricultural insurances concluded in Romania has increased in the last years, it continues to remain low compared to other European countries. It is estimated the premiums collected per annum for agricultural insurance amounted approximately EUR 25-35 million in 2013, while the entire insurance market amounted EUR 1.87 billion (so, they have a share of 1.3 - 1.8 of the entire market).

Based on Government Decision no. 756 dated August 12, 2010, the Romanian state subsidizes a part of the annual premium, and the granting of the state aid is conditioned by the closure of an insurance. In this case, depending on the risks covered, the state subsidizes up to 70 % of the insurance premium paid by the farmers to the specialized companies, as reimbursement, according to the law. For crops and animals, state repays 70 % of the insurance against the weather events assimilated to natural disasters and 50 % of the policies that include, in addition to the risks of natural disasters, the risks connected to certain diseases and pests. In case of grape producers, state repays 50 % or 80 % of the insurance premium, depending of the risks covered.

The most frequent risks covered by the insurers are hail, heavy rainfall, storms, winter frost, that have had a higher frequency in the last years.

From 2015, Die Österreichische Hagelversicherung, that in 2006 started an expansion policy to the Czech Republic, Slovak Republic, Hungary and Slovenia, is also present on the Romanian market.

Beside the basic product, Agrar Basis, covering the risks for hail, heavy rainfall, storms, fire, early autumn frost, late spring frost and especially the winter frost, Die Österreichische Hagelversicherung brings for the first time in Romania the drought insurance - Drought Index - insurance that has a real success. The Drought Index Insurance covers wheat, corn and sunflower crops.

In January 2014, the Law on the approval of the Ordinance for the establishment and authorization of mutual funds in agriculture was published in the Official Gazette. The legal framework allows the establishment of mutual funds managing the agricultural risks, by offering financial compensations to their members for the economic losses caused by diseases of plants and animals, by an environmental incident or other natural factors.



The mutual fund will allow the affiliated farmers to conclude an insurance by which to benefit for compensatory payments for economic losses caused by the occurrence of certain events specified in the European regulations and detailed in NRDP.

Considering the evolution of the Romanian agriculture in the last years, that an increasing number of farmers are convinced of the usefulness of joint undertakings that facilitate the gaining of financial results capable of sustaining the closure of insurance policies, and also the fact that Romanian agriculture is highly dependent on the climate factors, agricultural insurance will become increasingly important.

### **3. Conclusions**

In the last years, risk and crisis management in agriculture represents an important subject during the debates regarding agriculture.

The analysis performed by this study outlines several aspects characterizing the agricultural insurance systems in several European countries:

- Insurance systems are much more efficient as regards risk management than the ad-hoc aids offered by the governments for disasters, contributing in a certain level, to farmers' accountability for their own risk;

- The EU states have adopted different agricultural insurance systems, in which the state may play a smaller or a bigger part, taking into account that the implementation of agricultural insurance systems is not critical for the food safety of population, but for the economic stability;

- Experience of countries such as Germany, Poland, Italy has indicated that premium subsidies are a key prerequisite for the stability and sustainability of an agricultural insurance system, especially if it is integrated in a system that also includes other risk management instruments;

- In France, having the strongest agriculture in the EU, where the governments has increasing substantially the level of subsidies starting with the 2005 Reform, French people consider that the public-private-partnership has to be strengthened, and also, that the three partners, government, farmers and insurers have to strengthen their own commitments;

- The Spanish agricultural insurance system, in which the public-private-partnership plays an important part proves to be very efficient, with

benefits for the public administration (government), insurers and also the farmers;

- In Romania, taking into account the importance of agriculture for the Romanian economy, based on the Government Decision no. 756 dated August 12, 2010, the Romanian state subsidizes a part of the annual premium, and the granting of the state aid is conditioned by the closure of an insurance. The same thing happens in Bulgaria and Poland, and in Denmark, the farmers are conditioned by the participation in a fund for catastrophic damages in order to benefit from the state contribution. In Romania, is under development a system of mutual funds that will allow the affiliated farmers to conclude an insurance in order to benefit from compensatory payments for economic losses caused by certain events specified in the European regulations;

The general conclusion is that a sustainable agricultural insurance scheme is built in time and needs long term efforts, and it is necessary that the EU continue to invest in agriculture, finding solution through CAP to the challenges of new climate changes, knowing that crop insurance will play an increasingly important part in the next years in Europe.

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