Workshop

'Risk management in EU agriculture'

May 18 & 19, 2017

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Disclaimer: This summary is based on abstracts provided by speakers and a synthesis of questions and answers. More details are available in the presentations. These documents solely represent the views of their authors and cannot be regarded as the official position of Constituencies/the European Commission.

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1 Introduction

1.1 Context, scope and objectives

This event was part of a series of four workshops aimed at gathering evidence in the context of the impact assessment on modernising and simplifying the Common Agricultural Policy (CAP). This workshop provided an opportunity to discuss with external experts and with interested staff of various Directorates General of the Commission challenges and possible solutions for managing risks in EU agriculture.

This workshop was organised by the Directorate General for Agriculture and Rural Development (DG AGRI).

Context

Guarantying a fair standard of living for EU farmers is a fundamental objective of the CAP and enshrined in EU Treaties.

Risks for agricultural income can come from various sources:

- From markets in form of low or very volatile prices
- From production in form of environmental or climate-related, or sanitary events
- From general context in form of political instability or regulatory uncertainty
- Or from combined effects on income

The approaches and tools at disposal of public policy to address these risks are manifold and the CAP as such already provides several complementary instruments for this purpose: Direct payments for a stable basic income support (mostly decoupled), a safety net for crisis management and a specific risk management toolkit as well as a whole menu of complementary measures to enhance farm resilience and competitiveness under rural development policy.

In practices, however, there are several challenges to an efficient and effective use of risk management instruments, be it the low and heterogeneous implementation of the risk management toolkit among Member States or the limited uptake by farmers explained e.g. by the presence of measures such as ad hoc disaster relief which can decrease their interest to enter schemes that require their financial participation (insurance, mutual funds, savings accounts).

Achieving the objective of a viable and resilient farming community has always been a challenge for the CAP. A growing importance of risks faced by the sector bring a new dimension to this challenge: The recent crisis in agricultural markets and more in general external events linked to weather and climate have brought about the need to have a serious reflection on how to efficiently manage risks and how to make the farming sector more resilient.

Scope of the workshop

The main objective of the workshop was to present and discuss best practices on agricultural risk management in order to shed light on practical experiences, which will help policy development in particular in the context of the ongoing impact assessment. The event focused on ways how to address price, production and income risk via privately and publicly developed/organised risk management instruments.
This implied looking at questions like:

- What is the experience with existing public policy tools – what can we learn from their implementation and what can be made better?
- Is public policy always the answer – what private solutions do exist and how can others be developed?
- What is the role of the farming community in all this?

The workshop was structured over 1.5 days consisting of two parts, namely 1) a series of sessions each built around a specific type of risk or cross-cutting issues and 2) a discussion on further policy developments. The detailed agenda was published at https://ec.europa.eu/agriculture/sites/agriculture/files/events/2017/cap-have-your-say/risk-management/agenda.pdf.

The audience consisted of different experts from academia, the private sector, organised farming community etc. as well as officials from DG AGRI and other Commission services. Luka Juvančič, University of Ljubljana, and Carmel Cahill, OECD, acted as co-rapporteurs.

The conclusions of the workshop were presented on the occasion of the Stakeholders conference on Modernising and Simplifying the CAP (7 July 2017, Brussels) by Luka Juvančič in close cooperation with Carmel Cahill.

1.2 Setting the scene

Tassos Haniotis, Director in DG AGRI, welcomed the participants and briefly presented the overall context within which the debate about the future CAP takes place. He presented the achievements and shortcomings of the CAP reform path (the former: bridging the gap between world and EU farm prices, thus increasing competitiveness and turning the EU from a major trade player for both exports and imports into a net agro-food exporter, while providing relative income stability within a very volatile income and price environment; the latter: despite progress, the environmental performance of EU agriculture requires further improvement, productivity growth is mainly driven by the outflow of labour, and less by research or innovation, while questions on equity, safety net and simplicity of the CAP are still hotly debated).

He then moved into the drivers and future challenges that the policy would have to face (the changing commodity, economic and price environment, the shift of trade from multilateral to regional agreements, and new climate change, environmental and broader sustainability priorities) and identified three tensions that the future CAP has to address and turn into synergies (between the economy and the environment, subsidiarity and simplification, jobs and growth and the impact of new technologies on agriculture), all of which are expected to generate more risks for the agricultural sector and thus more need for risk management.

Finally, he classified three types of risks that need to be addressed with risk management - price-related risks, production-related risks and income-related risks, inviting participants to focus the discussion on the pertinence of policy tools available to address them.

Florence Buchholzer, Advisor on foresight and impact assessment in DG AGRI, explained the process. It involves a first phase of consultation, where the challenges and objectives need to be identified, and which leads to the definition of the policy options and their assessment. The work takes into account the opinion of the REFIT platform, the results of the public consultation, and of a series of thematic workshops.

2 Session 1 Different ways to cope with price risks

2.1 The EU market safety net

Fabien Santini, DG AGRI

The EU safety nets (public intervention and private storage aid) were at the heart of the history of CAP. Since the 90ies (and the "mountains" of butter and "lakes" of milk), they have been progressively reformed and now market measures only represent a small share of the CAP budget (less than 3%). Such tools are available for a certain number of agricultural products (as laid down in Regulation No 1308/2013 on the common organisation of the markets) in determined conditions (periods of time, reference price thresholds ...).

The recent history of public intervention shows that for cereals and meat it has not been triggered in the past 8 years. The last public intervention for cereals concerned mainly barley in 2009, last period when the price of barley got close to the intervention price. In meat products, intervention has not been triggered since 2004. In dairy products, if for butter public intervention has not occurred since 2009, the last dairy crisis of 2015-16 has been subject to one of the highest level of public intervention ever for skimmed milk powder (SMP) (over 350.000 t in public stocks).

Public intervention has been judged by several recent evaluations as playing its role in not allowing prices to fall too low. However, intervention prices should be maintained at a low level, in order that price signals reach production level, that the international and domestic competitiveness of the products concerned is maintained and that artificial stocks which would weigh permanently on the prices are not accumulated. The issue of disposal of public stocks is to this respect of key importance so that markets are not disturbed by the return of products withdrawn from the markets.

Some studies, based on agro-economic modelling, evaluated the impact of possible changes of the intervention price level. In the event of an increase of the intervention price for dairy products, a 2016 study\(^2\) shows that a small increase would have literally no effect on the market price, while a significant one would have some effect on the domestic price as well as on the world price (to the benefit of our main competitors) but at the cost of building significant permanent public stocks. Another study (still unpublished) looked at the consequences in the opposite situation where public intervention would not have been triggered in 2015-16 for SMP: prices of milk powder would have been significantly lower during the crisis period and in the subsequent years on the contrary significantly higher. This would lead to a stronger volatility of SMP prices, and consequently, but to a lesser extent, of milk prices.

2.2 Recent developments in US crop insurance

Vince Smith, University of Montana, USA (Summary delivered by DG AGRI)

The US federal crop insurance programme offers a wide variety of insurance programmes ranging from multiple peril crop specific insurance to whole farm production risk insurance and from yield to revenue insurance. The programme includes over 20 different types of products, all heavily subsidised by the government. Prior to 1980 only administrative costs were to be subsidised. As the average premium subsidy rate increased over time to 62%, so did the number of insured acres. Between 1981 and 2014, the participation rate increased from 15%\(^2\)

to 90% whereas the number of crops covered by insurance increased from 5 to 130. Evidence shows that farmers will not purchase all risk or index insurance without substantial subsidisation. The revenue based programmes that were introduced in 1996 now account for 70% of all premiums subsidies and liabilities.

The federal crop insurance programme has been very effective to increase the uptake of crop insurance among farmers. However, it also has been a very expensive and inefficient way to hand out money. Government expenditure on premium subsidies and administration and operations subsidies increased from $1.5 billion to $7.5 billion USD between 2000 and 2015. The deadweight costs associated with the subsidies are estimated to be $2 to $3 billion USD a year. Moreover, farmers tend to use fewer inputs such as fertilizer and pesticides and also encouraged the expansion of crop production on environmental sensitive lands. The US crop insurance programme took over a large part of the farmers’ risk and made them less sensitive to market signals.

2.3 Practices from the ground: The case of futures markets in the EU
Bart Teuwen, DLV, Belgium

Mature and liquid market

Although a lot of agricultural markets are commodity markets only very few can be considered as “mature & liquid markets”. Mainly on the markets for animal products (hogs, piglets, dairy, beef, eggs, …) farmers are doomed to market their products on the spotmarket. The forward market does not exist and futures markets are struggling to gain liquidity. Consequently these farmers have very limited possibilities to manage their marketing. However, having access to these 3 markets can be the most effective and (cost-)efficient tool for farmers to manage the marketing of their product, weighing opportunities versus risk. Why would we force farmers to put all their eggs in the basket of the spotmarket?

You need a clue

If you do not have a clue about supply and demand it is going to be hard to decide whether you market your products on the forward market, on the spotmarket, or to wait and partially hedge/lock-in your price on the futures market. Therefore we need good information about transactions (volume and prices) on the spot-, forward and futures market, supply and demand, forecasting, ... Only with good data/information you can make a decision.

Biconditional logical connective

Liquidity on the spotmarket and the forward market is provided by merchants, dealers or traders. On the futures market we call these traders “speculators”, but their function is exactly the same: provide liquidity! Because commercial parties are involved in the supply side and/or demand side, they have direct access to information. This is not the case for traders, so they will always be disadvantaged. Therefore, if the sector/government wants traders to play their role as liquidity providers, the sector/government needs to organise transparency, where transparency can be defined as: “accurate and up-to-date information on transactions (volume and prices) on the spotmarket (and forward market), supply and demand, forecasting, ...”. At the same time, if a futures market is having enough liquidity (provided by traders) it provides a tool to commercial parties where they can lock-in opportunities, or hedge risks. Thus considered, “transparency” and “futures markets” are the two sides of a biconditional logical connective.
Market management

“Risk management” is one side of a coin. The other side is called “Opportunity management”. The coin’s name is “Market management”. If we want to convince farmers to manage their risks we should also talk about the opportunities.

2.4 Question and answers of Session 1

Summary delivered by Carmel Cahill, OECD, co-rapporteur

Questions sought to clarify various aspects of the potential of different instruments in different settings, and to better understand obstacles to the development of market instruments such as forward contracting.

Concerning the potential for farmers to use forward contracting to hedge against price risk, it was explained that, because of production/delivery risk, farmers never seek to hedge the totality of their projected production. In the example discussed, about one third seems to be the norm and farmers availing of future and forward markets tend to be younger and more educated than the average, while they are not necessarily the biggest. The main obstacles to further development of market based hedging instruments were identified as farmer attitudes, first the need to develop a risk management culture with individual farmers accepting a measure of responsibility for managing risk on their farms, second, the need for education particularly in relation to market instruments was emphasised repeatedly. Farmers and the public need to better understand that the “speculation” which enables futures markets to function is what actually enables them to play their price discovery role. Failure of futures markets to develop in Europe was attributed to unwillingness among market actors to share information and a possible role for governments was seen here in creating the institutional framework and building the trust which would allow the necessary information to flow.

Concerning crop insurance, the discussion revealed that no commercially viable multi-risk crop insurance has emerged, all known schemes involve significant public support. If governments decide to go this route, it is important to design schemes in such a way as to avoid moral hazard and adverse selection issues. There is a serious risk that badly designed schemes will crowd out private initiatives, stifle innovation from farmers themselves and mask the need for adaptation to climate change. In the US, it was stated that the underlying objective of crop insurance is actually income support, and that the bulk of the benefits accrue to the largest farmers.
3 Session 2 Different ways to cope with production risks

3.1 The EU agricultural insurance and reinsurance sector

Maximilian Strobl, Munich Re, Germany

Driven by the ongoing climate change the significance of losses caused by natural perils is globally increasing for the farming sector. This has again become reality when we look at the widespread and severe frost losses for fruits, vegetables and grape vines in a lot of EU member states in late April of 2017.

One way of coping with such losses for farmers is buying insurance protection.

Looking at the available type of coverages in the EU, the covered perils and the involvement of government is quite diverse ranging from a traditional commercial hail insurance to the coverage of single perils like frost or storm to a subsidised policy that covers all relevant natural perils. The landscape in the EU is quite scattered. The same is true regarding financial support for buying insurance by governments. This support is mostly provided by subsidising insurance premiums for farmers. There are still quite a few EU member states that do not provide any subsidies for insurance premiums, but there is also a significant and growing number of EU member countries that provide substantial subsidies out of national budgets and/or the EU budget in compliance with Article 36 of Regulation (EU) No 1305/2013. Global experience shows that farmers cannot afford to buy a meaningful coverage fully out of their own pockets but rather have to rely on ad-hoc disaster payments from government. This means that in case of a loss that jeopardises the existence of a farm, the farmer is at the mercy of a government. A lot of countries have therefore decided to shift from an ex-post to an ex-ante support system to deal with natural catastrophes in agriculture. In most instances this is done by enabling farmers to buy insurance through providing subsidies. The increasing frequency and severity of financial losses caused by Mother Nature makes it more and more challenging for governments to appropriately deal with it. In a lot of cases disaster payments by governments are paid with a significant delay and government authorities are challenged to properly assess losses without a permanently existing appropriate infrastructure to do so.

The public support of an insurance solution makes it also easier to budget the funds required for disaster aid. In an ex-post system the necessary funds to compensate farmers for losses caused by adverse weather can fluctuate heavily from year to year, whereas premium subsidies are easier to deal with from a budget point of view as they are quite stable from year to year.

There has been criticism that the existence of subsidised insurance covers might lead farmers to abstain from environmentally sound production methods. This can be solved by regulations like in the US, where subsidies to farmers for purchasing crop insurance are tied with conservation compliance requirements.

Insurance systems are not the only and perfect solution to deal with the challenges of production losses from natural catastrophes like frost, drought, hail and storm. But global experience shows that government-supported insurance has strongly gained significance over time and has proven to be a viable and cost-efficient alternative to ex-post ad-hoc disaster payments in a lot of countries.

Crop production is happening under open skies and therefore is a risky business that can cause multi-billion € losses in any year in the EU. To deal with such catastrophic losses in insurance a strong reinsurance sector is needed.

Reinsurance is a global business. Most reinsurance companies are acting with the goal to diversify their portfolio over geographies and different lines of business. Agricultural reinsurance is a specialty line of business within the reinsurance sector and was started about 30 years ago in the late 80’s of the last century. Today there is a large number...
of regionally and globally acting reinsurers with a dedicated team of specialised agricultural reinsurance underwriters that provide substantial risk capital to cover catastrophic losses in crop production. Agricultural insurance and reinsurance has globally seen a significant growth over the last 20 years. Globally North America has the highest crop insurance penetration, but especially in Asia we can observe a very dynamic growth in crop insurance over the last years.

3.2 The case of a public-private RM partnership

José Ignacio Contreras Fernández, ENESA, Spain

The Spanish Agricultural Insurance System (AIS) is almost 40 years old (established in 1978) and its implementation has been progressive: Initially, it was limited to cereal crops and certain risks (hail, fire), but currently offers 43 insurance lines, including all sectors (plant crops, livestock, forestry and aquaculture) and all the relevant natural risks.

These risks are covered in a combined way (multi-peril policies).

Participation is voluntary for farmers, and subsidies are paid under the EU Guidelines for State Aid.

The system operates as a public-private partnership, with three main stakeholders:

1. Public sector: the State Agency for Agricultural Insurance, ENESA (Ministry of Agriculture and Fisheries, Food and Environment), is the coordination and liaison body for the AIS. The Insurance Compensation Consortium (Ministry of Economy, Industry and Competitiveness) is the compulsory public reinsurer. Autonomous governments are also involved.

2. Insurance sector: insurance companies grouped in a co-insurance pool (AGROSEGURO).

3. Farm sector: its organisations contribute to the general orientation of the system, the dissemination and the promotion and also act as commercial agents of the insurance products.

The coordination of the system is done through ENESA’s General Commission, where all stakeholders are represented. Each year, the General Commission adopts the Agricultural Insurance Plan (AIP), which is the main strategic document of the AIS, establishing the insurance lines available and the subsidy levels. The General Commission also has subsidiary groups, where all the technical documents for each insurance line are agreed before the start of the contracting period.

The public-private nature of the AIS means advantages for all three parties implied.

3.3 Practices from the ground: The case of Crop Insurance in Poland

Krzysztof Łyskawa, Poznań University, Poland

It is known that the socialist age in our history was very strange. In economics, many facts depended on the acts or decisions of officials but not on the will of the entrepreneurs. In agriculture and insurance it was similar. In last years of socialist period in Poland (the late 80’s) each farmer was obliged to participate in 11 different types of insurance. As a result, almost every farm had several types of insurance.

Currently in Poland we have more than 1.5 million farms, of which over 99% are individual farms. If we have a look at structure of the farm we can easily noticed that small farms dominate over farms of a different size. However, it is estimated that only approx. 160 000 farms deliver products on the agricultural market and provide food.
The subsidised crop insurance system in Poland is already 10 years old. Recent modifications have had a number of positive elements: the inclusion of individual crops (excluding basic cereals, rape and burdens), the possibility of increasing the level of subsidies to 65% of insurance premiums charged by the insurance companies, or the harmonisation of grace periods. In Poland, we observe a significant insurance coverage for high-volume arable (rape, sugar beet, tobacco, hops) – in the rape seeds more than 80% of sown area is insured almost every year. Almost 30% of the arable land is covered by insurance for at least one peril (about 3 ml hectares). However, the goal of the government is to insure at least half the land.

However, we have also seen considerable shortcomings in the use of this system and modifications are necessary in many situations.

1. The high price for insurance - paying subsidies directly to insurance companies causes a distorted picture of the actual revenue that insurance companies charge. It is necessary to establish an institution that will check the correctness of the rates set by insurance companies.
2. Compensation does not cover the damage - for many types of crops farmers are concerned about how to estimate damage, mainly concerning the risk of winter-kill, spring frosts.
3. A lack of attractive livestock insurance.
4. No possibility for the Ministry to influence the quality of insurance protection provided.
5. It is recognised that the introduction of insurance obligation for farmers is not a complete success solution. It is necessary to include entities participating in the food chain in hedging risk on farms (also via contribution to data collection).

3.4 Question and answers of Session 2

Summary delivered by Luka Juvančič, University of Ljubljana, co-rapporteur

Q1: Both presented country case-studies have opted for public support of crop insurance schemes via national state-aids. A question was raised on the motives/arguments for such decision.

Both speakers underlined the fact that the farmers regard the 30% indemnity threshold (as stipulated in the case of support for insurance premium from CAP Pillar 2) as too high. According to their experiences, the farmers’ willingness of risk-sharing in insurance undertaking is low, therefore schemes with such an indemnity threshold rate would have resulted in a significantly lower insurance coverage. A possibility to opt for a supported crop insurance scheme with a lower indemnity threshold is one of the key reasons for keeping this instrument as national state aids.

Q2: Further, country-case presenters were asked to evaluate the efficiency of crop insurance systems in Spain and Poland, particularly in terms of the ‘standard’ problems of moral hazard and crowding out. A question was also posed concerning the equity of the insurance scheme – larger farms benefiting the most (questions applicable to Spain in particular).

In the Spanish case, moral hazard is limited; this could be due to the fact that insurance covers specific losses, not yields as such.

In theory, ‘crowding-out’ can be a problem; in particular, such problem is realistically applicable to the insurance-pooling system in Spain. Empirically, the problem is hard to quantify though, as no counterfactual exists.

Furthermore, no correlations have been observed with respect to the size of farms and the (distribution of) benefits. AIS is generally regarded as a socially sustainable system.

With respect to the efficiency of the crop insurance systems in Poland, high loss ratio of agricultural insurance was stressed. This results in a low stability of agricultural insurance in
the country, with all corresponding negative consequences (changing conditions of assurance and scales of premiums, fluctuation of insurance providers).

Q3: One of the obvious challenges is how to increase the demand for commercial insurance in agriculture. How could/should we tackle this challenge?

The first and probably most obvious answer would be government support. On the supply side, opinion prevails that multi-peril crop (MPC) insurances are not feasible without government support. However, with regard to the global scale of the insurance business, where agriculture participates with about 3%, it appears that the industry itself should be, at least to some extent, able to cushion adverse events.

Another important challenge deals with the consistency and design of insurance products; if conditions on insurance markets are stable, conditions transparent, service responsive and compensations expedited quickly, the demand will follow.

The third important issue is education of land managers and (access to) information. More needs to be done in this respect.

Q4: As climatic events have changed and the risks are increasing, the agricultural insurance/reinsurance industry adapts with new products. Which particular products are emerging in the industry globally?

In practice, the interest is increasing in particular on revenue/income insurance. However, due to its technical and administrative complexity, North America remains by far largest market on income/revenue insurance in agriculture.
4 Session 3 Different ways to cope with income risks

4.1 The case of the IST in Hungary

Aniko Juhasz, Research Institute of Agricultural Economics, Hungary

The present Hungarian Risk Management System (MKR) operates since 2012, it has two pillars (an obligatory multi-peril mitigation fund and a voluntary insurance fund). The two pillars have common risk definitions and common reference crop yields. MKR is a fully digitised system, with large number of stakeholders using it: 77 thousand farmers, 11 insurance companies and mutual funds, 19 regional government offices, 8 central offices and institutes. Why do we think that an Income Stabilisation Tool (IST) would be a good instrument beside the already existing risk management system? Because our research showed that between 2004 and 2014 29% of crop farms, 31% of mixed farms (especially small ones) and 40% of pig farms had years with decreasing income more than 30% compared to the previous year. Income loss is not ideal for market insurances – because its control is difficult and its probability is high. Moreover the probability of income losses will increase in the future (climate change), and its impact on Member States will be heterogeneous. What are the positive features of the IST system we proposed? It is a green box measure. It provides an opportunity to cover income risks by crops and market/production risks by animal husbandry. It is also a relatively cheap system if one, already existing state fund operates it using administrative data. What are the challenges of the proposed IST system? It is a complex system and even with state data it requires farmers to provide their income data. Digitisation will help to measure natural outputs and yields – so farm-linked indices will cover the production risks better than even before! The pro rata compensation helps to decrease moral hazard but has the risk of overloading the fund. Thus the present proposal for IST is only a pilot for a small group of farmers willing to discover a new risk management tool. Why are we still not implementing the developed IST system? Because it has high political risk until there is a possibility that IST will be used instead of direct payments and there is no guarantee that lower income countries in Central and Eastern Europe do not lose from their overall support level through IST!

4.2 The case of an IST for the sugar-beet sector

Pierre Rayé, CGB, France

2017-2018 will be the first campaign without the sugar quota system and the minimum beet price. Henceforward, the sector’s revenue will be more impacted by the world sugar prices volatility: white sugar prices have moved in a range going from 200 €/T to 600 €/T over the last 10 years.

Sugar beet prices being mostly the result of a sugar value sharing between growers and processors, growers will face a stronger volatility of their revenue and the sugar beet plantings as well as the sugar mills supply will be more uncertain. Taking these elements into consideration, it could hamper the capability of farmers and processors to pursue their investment in their competitiveness in order to create long term value.

Hence, the sugar beet sector and its farmers will have to adapt their “toolbox” to manage this more risky market environment. Private solutions through collectively negotiated contracts to deal with normal risk should be adapted. Sugar futures markets can be used as a mean to develop diversified pricing solutions to enable farmers to anticipate and secure their margin as it is currently the case in the grain sector.
However futures markets are not liquid enough beyond 1 year and a half, whereas the world sugar market is subject to 2-3 year low price cycle because of the investment cycle momentum. There will be no way for private contractual solutions to address this kind of market crisis situation and the few left safety net tools in the CAP (aid for private storage) will not be sufficient. A Sectorial Income Stabilization tool would be relevant to address this kind of market crisis. It would be a mean for a sector to organise a saving system supported by public authorities in order to release funds during crisis period. This tool with low intermediation costs would have been efficient during the most recent crisis on the world sugar market.

Following the proposal from the European Commission in the Omnibus regulation there are still some modifications needed to make this mechanism fully operational:

- Compensation should be based on the specific sector’s revenue.
- Indexes should be authorised to calculate the compensations to organise an efficient and reactive management of the system as well as to avoid the moral hazard issues.
- Public contribution to initial capital stock should be clearly authorised for easier management of public spending and a quicker compensation.

4.3 Practices from the ground: The case of Glanbia
Brian Hanafin, Glanbia Group, Ireland

Dairy price volatility is a significant threat to the long-term economic sustainability of dairy farmers, with both the frequency and severity of price volatility increasing since the implementation of the 2003 CAP reform. Glanbia, as the largest dairy processor in Ireland, is proactively developing solutions to alleviate the challenges posed by extreme price volatility for both its farmers and customers.

Price volatility is impacted by weather events, geopolitical uncertainty, foreign exchange rate movements, oil price fluctuations and buyer sentiment. The Irish Dairy Industry is exposed to price volatility due to its heavily reliance on international markets as a result of the high volume of output and small scale domestic market. Glanbia is of the firm view that volatility will be a permanent feature of international dairy markets and as a result is focuses on developing Price Volatility Programmes that addresses the challenges of dairy price swings.

The following gives a brief synopsis of three initiatives that Glanbia have in terms of Price Volatility Management:

1) Fixed Milk Price / Margin Schemes:
   - Link all actors in the supply chain – farmer, dairy processor, customer in a virtually integrated manner.
   - Milk Price is determined under a detailed cost plus margin methodology using Irish Central Statistical Office farm input cost index to move milk prices up or down to reflect annual input cost movements.
   - Duration of scheme (typically three year duration) allows for margin certainty for farmer and price certainty for customer.
   - Model facilitates fully integrated pricing visibility from farm, through processor and to customer.

2) Glanbia MilkFlex Scheme:
   - An international first - the creation of the Glanbia MilkFlex Fund delivers competitively priced and appropriately structured dairy farm finance.
This product is designed to match the cash flow generated by a dairy farm enterprise, with no repayments during certain times of low milk prices and increased repayments at times of high prices.

This initiative was made possible through collaboration with the Ireland Strategic Investment Fund, Rabobank and Finance Ireland - in bringing the Glanbia MilkFlex Fund to market.

3) Glanbia Advanced Payments:

- The GAP Scheme which was launched in 2016 provided advanced payments to farmers for milk supplied each month to assist in addressing short-term funding challenges in times of low milk prices.
- Through the GAP Scheme, Glanbia Cooperative established a €100 million fund which facilitated the payment of what are essentially interest free loans to farmers when milk price fall under a predefined (low) price point with these loans automatically repaid when prices move above defined (high) price point.
- This allows dairy farmers to protect their cash low at the lower end of the milk price cycle.

4.4 Question and answers of Session 3

Summary delivered by Luka Juvančič, co-rapporteur

Q1: In the presentation of IST in Hungary, it was reported that about 77,000 agricultural holdings are participating in the current system of production risk management in Hungary. Agricultural enterprises and large professional farms are prevailing in these schemes, whereas the majority of the total number of agricultural holdings (577,000 in 2010) remains outside the system. Which measures should be considered for a stronger involvement of farm holdings of a lower size scale in the coming IST?

Transition to IST is a realistic option only for a subset of farms being able to track their financial records, i.e. primarily to agricultural enterprises. Apart from strong equity considerations, this is also a practical challenge dealing with implementation. Furthermore sectorial schemes are not a workable option for a relatively small country with a diversified agricultural production. Index-based schemes offer a part of the solution; this is also a way to control for moral hazard behaviour. On the other hand, in the case of index-based risk management mechanisms, the incentive for farmers to join is low.

Q2: Most farmers are multi-commodity producers. For this reason, an obvious question emerges, why IST (or other income risk management tools) do not take into account the total farm income?

Several measurement and data comparability issues emerge with respect to the measurement of total farm incomes. There have been several attempts to unveil this issue, but with a very limited success. Besides, any transition from the current CAP expenditure (with the predominance of Pillar 1 direct payments) would bring strong redistribution issues (see also next question).

Q3: What challenges were identified concerning the income risk management tools – as part of CAP, or as private schemes?

With respect to the diversity of agricultural structures in the EU, the immediate challenge that exposes itself is REDISTRIBUTION. Redistribution would inevitably occur between sectors / production types, but also between regions, and also Member States. Transition to a stronger
risk management package within the CAP, in particular if this goes on the account of (a part of) the direct payments budget, is therefore a politically very sensitive issue.

Presentation of two cases from France (CGB) and Ireland (Glanbia) open another dimension of managing income risks in primary production. Particularly the Irish case brings a strong message that private solutions may bring even more beneficial results. The risks are shared along the whole supply chain. Only a growing empathy between the actors along the supply chain can bring a qualitative leap from RISK COPING TO RISK SHARING. With respect to risk sharing, the importance of (the access to) information and education has also been stressed.

Q4: How flexible/binding are Glanbia’s contractual arrangements with farmers?

With respect to this question, a clear answer was provided: contractual obligations need to be respected on both sides.

Q5: Do processing firms (like eg. Glanbia) recognise their interest in developing elaborated private risk management schemes?

Processors are highly interested in a stable provision of quality raw material. For large companies like Glanbia, excessive price volatility is problematic, no matter whether prices of primary products are increasing or decreasing. Especially in the case of decreasing prices, stable supply of raw materials is challenged.
5 Session 4 Cross-cutting issues

5.1 Access to finance/capital for private risk management initiatives

Jean-Christophe Roubin, Crédit Agricole SA, France (Summary delivered by DG AGRI)

- Crédit Agricole is the main French agricultural bank (80% market share)
- Crédit Agricole needs to provide solutions addressing various risks faced by farmers to secure their business:
  - Low risks: (equipment breakdown...)
  - High risks: (climate hazards, fall in prices...)
  - Exceptional risks (epizootic, Bovine spongiform encephalopathy...)
- The various solutions proposed include:
  - Precautionary savings to act as a safety buffer via 2 products:
    - **Dispositif fiscal DPA (Dotations pour Aléas)** is a tax instrument providing for savings which can be deducted from the income statement used as a basis for income and social taxes. This instrument is not really successful despite the tax reduction because the money is blocked for 7 years and can be withdrawn only in the event of economic or health climatic hazards. In addition, if the money was not used after 7 years it will be taxed.
    - **Compte Epargne Agri** is a saving account of 5 year duration specific for farmers with a slightly higher interest rate than usual saving accounts. This product is more successful than the DPA mainly because funds remain available.
  - **Crop & grasslands insurance** against climate hazards to protect producers from several climate hazards. This product is widely used. A more global approach is also under development: a turnover insurance.
  - **Price insurance**: in sectors where the bank can hedge on futures markets a price insurance is offered to farmers. This is widely used. However, there are no futures available in many sectors (beef, sheep, ...) for which therefore the bank does not offer price insurance.
  - **Income insurance**: the bank designed an income insurance but it was not adopted by farmers because of the high premium and the product was dropped.

5.2 Behavioural aspects on Risk Management

Miranda Meuwissen, Wageningen University, The Netherlands

Cost-effectiveness of risk management instruments is to be analysed at business level as well as at system level. Spillovers can occur at both levels.

At system level, subsidies should be accounted for (e.g. in case of subsidised insurance), but also costs and benefits of data provision, farmer education (e.g. for price contracts), and increased availability of tools (e.g. remote sensing) to monitor behaviour, thereby potentially reducing moral hazard.

Risk management instruments embrace a wide set of tools. The results of the FP7-Ulysses project\(^3\) illustrated the increased interest of chain actors to (mutually) share risks within the chain. (These options often do not get much attention.)

\(^3\) [http://www.fp7-ulysses.eu/](http://www.fp7-ulysses.eu/)
5.3 Facilitating risk management via the farming community
Paola Grossi, Asnacodi, Italy

The presentation delivered describes data of agricultural insurance contracts to which either EU funds or State aids contribute. CONDIFESA are mutual associations with only farmers as (voluntary) members. They sign collective contracts with insurance companies on behalf of their members. In Italy more than 20 insurance companies are operating in this market: competition and activity of CONDIFESA facilitate tariff decreasing and new proposals for insurance coverage for farmers, such as gross revenue policy. CONDIFESA and ASNACODI, the national umbrella association, use new technologies, participating in several EIP initiatives to reduce insurance costs both for farmers and for insurance companies, and manage mutual funds. In the relationship with public bodies, CONDIFESA and ASNACODI collect the information and the applications of farmers insured, transfer them into one data flow, send it to the public agency in charge of checking them. Afterwards they monitor financial flows and try to speed up the bureaucratic process and to eliminate bottlenecks. CONDIFESA pay in advance the total cost of insurance coverage of their members, easing the financial burden of the delay in payment, caused by bureaucratic procedures. In two words, the activity and the mission of the ASNACODI Network could be innovation and solidarity, helping farmers to use extra prevention tools and to be aware of innovation and research results. We believe that acting together in this way improves cohesion and mutuality between farmers.

5.4 Question and answers of Session 4
Summary delivered by Luka Juvančič, co-rapporteur

Q1: Risk management as ‘the 3rd Pillar of the CAP’?
No consensus has been reached on this issue. Such a step would bring a major change to the institutional environment of the CAP and to the existing relationships. Such a step would therefore need to be followed by a strong information and education process.

Q2: Should participation in risk management schemes be compulsory for farmers?
There is no straightforward answer to this question. On one hand, risk profiles of farms differ a lot. On the other hand, without a large population of participating farms, the problems linked with adverse selection increase. A large basis of insured area is hard to achieve within a strictly voluntary system.

Q3: Evaluation of moral hazard issues in mutual risk management schemes?
In general, evidence suggests that mutuals are useful tools to address both, moral hazard and adverse selection problems. Partly, this is because mutuality means also mutual control.

Q4: When discussing the moral hazard issues dealing with agricultural insurance, one of the possible outcomes is increasing pressure of agricultural practices on the environment. For this reason, should the implementing provisions include also environmental rules?
In order to prevent moral hazard a well-designed and limited subsidy system is needed. On the other hand, inputs are costly for farmers and there are already environmental rules in place so that subsidies might not give rise to moral hazard.

Q5: How to design agricultural insurance schemes in future?
An important finding is that the implementing provisions should take into account the regional/local context in which the sector operates. There are no one-size-fits-all solutions.
6 Overall conclusions

Summary delivered by Carmel Cahill, co-rapporteur; includes also insights from Session 5 "Risk Management in relation to EU agriculture – Reflections from a panel discussion" with Flavio Coturni (DG AGRI), Vince Smith, José Ignacio Contreras Fernández, Aniko Juhasz and Miranda Meuwissen

The workshop was organised around three main themes concerning price risk, production risk and income risk. Across the three themes cross-cutting issues emerged in relation to the appropriate scope of private management of risk, the potential role of market instruments, and how to define the appropriate role of government. The potential for risk sharing among private actors (farmers and business) along the supply chain, as well as ways in which the EU or governments could support development of market based instruments was explored. Other cross-cutting issues which emerged related to education, information asymmetries and optional versus mandatory programmes.

While it is well understood that agriculture carries risks related to weather, climate and other natural phenomenon, as well as greater market volatility compared to some other sectors, it was generally agreed that the culture of risk management among farmers needs to be reinforced. Education is key in this respect. Aspects of tax and savings policies which may be discouraging farmers from normal precautionary saving to deal with production and income volatility could also be looked at. Existing support mechanisms, as well as ad hoc measures granted in response to specific events have a “crowding out” effect, that is they impede the development of normal prevention or coping strategies among farmers, as well as crowding out market –based instruments.

In the realm of market or private initiatives the discussion focused on the impediments to development of market instruments. Concerning futures markets, where developments in Europe lag behind those in the United States, two issues were identified. The first related to lack of transparency, or a lack of information. Unless good supply and demand forecasting is available as well as information about the volume and prices of transactions, these markets will not develop the liquidity needed to function. There is a possible institutional role here in providing the regulatory framework for the needed transparency and trust. Both public and farmers need to be educated about how these markets work and about the role of “so called” speculators.

Several promising risk sharing initiatives or proposals were presented, illustrating how it could be in the interest of farmers and other agents to share risk along the supply chain. For example providing a certain degree of price stability (e.g. over a one year period) brings benefits to the processing sector in terms of predictability of supply, in addition to providing predictability to farmers. This also illustrates how contracting can enable farmers to benefit from well-functioning futures markets without themselves being direct users of them. Other examples of risk sharing concerned the provision of revenue or income insurance by the financial sector as a way of protecting the value of its investment in a farm enterprise.

It was however noted repeatedly that existing direct payment systems and other support mechanisms may be impeding the development both of individual risk management strategies and of market based instruments and resulting in very low take-up of publicly supported schemes.

The workshop explored insurance schemes in some detail. Many difficulties in the development of commercial, actuarially fair insurance products were noted, and little prospect of commercial development identified. Nevertheless, there exist some good examples of mutualisation among farmers enabling some reduction in moral hazard. But, no fully commercial multi-risk farm insurance system has been identified and stable, multi-risk insurance schemes where they exist, generally receive significant public support. In the case of the US, several issues were identified, among them the high costs of the system, its complexity, the skewedness in the
distribution of benefits which accrue disproportionately to bigger farmers, and the effects of the system in crowding out farmers’ own strategies and stifling innovation more generally. While the Spanish system run by ENESA in cooperation with the private sector and farmers’ organisations manages to avoid some of these issues (including by insuring against specific risks and not yields), it is also quite significantly publicly supported and is acknowledged as fulfilling a social and not a purely commercial function.

Concerning income stabilisation programmes several points emerged clearly. The first related again to crowding out. Direct payments already help to smooth out income fluctuations making farmers less likely to take up voluntary supplemental schemes. Expectations created by ad hoc interventions by governments in response to specific events have the same crowding out effect. The constraints imposed by WTO regulations were also felt to militate against take-up, as broadly speaking, schemes can only apply to losses of more than 30% and for IST compensation is restricted to not more than 70% of recorded losses, (although it could also be argued that such limits incentivise individual responsibility). Whole-enterprise approaches were felt to be more appropriate than commodity income stabilisation programmes, as these would allow for the maximum amount of natural hedge between prices and quantities of inputs and outputs. However, the absence of full financial information on farm businesses is a factor hampering development of income stabilisation programmes. Certain seminar participants also seemed to consider that compulsory schemes would be more desirable to achieve the critical mass needed for risk sharing.

Other cross cutting issues were raised throughout the discussion. Given the diversity and complexity of the risks to which the sector is exposed across the Union, there is no one size fits all solution. Neither will it be easy to define the boundaries between normal risk, risk that can be handled through market mechanisms and events that require government intervention. The challenge facing policy-makers will be to define broad frameworks which incentivise the emergence of private and market based instruments where this is possible, while also allowing publicly supported measures to be implemented at the appropriate geographical or administrative level to reflect local risk conditions and profiles. Common to all instruments, public and private is a need for rapid disbursement of payments, for which some participants argued in favour of index based measures, rather than measures based on individual documented losses. New ICT tools have significant potential to assist in risk management, both in risk prevention, and in monitoring with a view to preventing moral hazard.