Study on risk management in EU Agriculture

Annex 1 - Case study 1

Transition from single-peril to multi-peril crop insurance with or without public support under Article 37
Study on risk management in EU Agriculture

Case study no.1: Transition from single-peril to multi-peril crop insurance with or without public support under Article 37
Foreword

This case study report has been prepared within the “Study on risk management in EU Agriculture” which has been implemented by Ecorys and Wageningen Economic Research between December 2016 and October 2017.

The case study has been prepared by individual expert. The authors of each case studies were selected because of their specific subject expertise. It should be noted that the case studies reflect the opinion and personal style of these experts. The findings in these case studies are used to illustrate and triangulate the outcomes of the data collection in the main report.

Main author
Marcel van Asseldonk, Wageningen University and Research, The Netherlands

With contributions by
Jean Cordier, UMR SMART LERECO Agrocampus Ouest – INRA, France
Fabio Santeramo, University of Foggia, Italy
# Table of contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of contents</td>
<td>5</td>
</tr>
<tr>
<td>Executive summary</td>
<td>7</td>
</tr>
<tr>
<td>Main findings with respect to the specific question of the case study</td>
<td>7</td>
</tr>
<tr>
<td>Main implications with respect to public policy</td>
<td>7</td>
</tr>
<tr>
<td>1 Introduction</td>
<td>9</td>
</tr>
<tr>
<td>1.1 Positioning of the instrument in the two axis map of agricultural risk</td>
<td>9</td>
</tr>
<tr>
<td>1.2 Main question and related objectives of the case with expected contribution to the portfolio of cases</td>
<td>9</td>
</tr>
<tr>
<td>2 Desk study on evolution of multi-peril crop insurance</td>
<td>11</td>
</tr>
<tr>
<td>2.1 Regulatory context of historical development</td>
<td>11</td>
</tr>
<tr>
<td>2.2 Supply</td>
<td>15</td>
</tr>
<tr>
<td>2.3 Demand</td>
<td>16</td>
</tr>
<tr>
<td>2.3.1 Uptake</td>
<td>16</td>
</tr>
<tr>
<td>2.3.2 Premiums</td>
<td>19</td>
</tr>
<tr>
<td>2.3.3 Deductible</td>
<td>20</td>
</tr>
<tr>
<td>2.3.4 Losses and indemnities</td>
<td>21</td>
</tr>
<tr>
<td>3 Preferences of stakeholders with respect to MPCI transition process</td>
<td>23</td>
</tr>
<tr>
<td>3.1 Pathway and public support</td>
<td>23</td>
</tr>
<tr>
<td>3.2 Temporary versus permanent subsidies</td>
<td>24</td>
</tr>
<tr>
<td>3.3 Allocation of CAP national envelopes</td>
<td>25</td>
</tr>
<tr>
<td>3.4 Encountered obstacles Article 37 for widening coverage</td>
<td>27</td>
</tr>
<tr>
<td>3.5 General outlook</td>
<td>28</td>
</tr>
<tr>
<td>4 Conclusion: implications of the case study in terms of public policy</td>
<td>31</td>
</tr>
<tr>
<td>4.1 Main findings with respect to the specific question of the case study</td>
<td>31</td>
</tr>
<tr>
<td>4.2 Main implications with respect to public policy</td>
<td>32</td>
</tr>
<tr>
<td>Annex I References</td>
<td>35</td>
</tr>
</tbody>
</table>
Executive summary

Main findings with respect to the specific question of the case study

The main objective of the case study is to analyse the transition from single-peril insurance to multi-peril crop insurance (MPCI), being either pure private-based or public-private under Article 37 (Regulation (EU) No. 1305/2013). Policy makers in Germany and the Netherlands have the ambition to create conditions for liberalisation. Before Article 70 (Regulation (EC) No. 73/2009) became available, allowing public subsidies from CAP, both Member States did not subsidise premiums (besides subsidies for pilots) and did not establish disaster funds in contrary to France and Italy. Subsidising MPCI in Germany is politically controversial and not considered as a step forward. Within the liberal Dutch policy context, a temporarily premium subsidy was agreed upon between policy makers and the farming community. Recent impact study revealed that MPCI is still not commercially viable in the Netherlands and the subsidy scheme is prolonged. Existing public-private insurance schemes were transformed in France and Italy to align with EU regulations for subsidising crop insurance instead of financing it from the national disaster funds as it was before. The transition in the Netherlands was more disruptive, since premium subsidies as well as MPCI were introduced simultaneously. Although private-based MPCI is introduced recently in Germany, uptake is lagging compared to France and Italy (and to a lesser extent the Netherlands). In general, a pure private-based MPCI with substantial outreach is difficult to establish even in mature single-peril crop insurance markets, as in Germany, and this is in fact worldwide the case.

Main implications with respect to public policy

Main findings on Article 37 potential development, as well as single peril and MPCI access and uptake, are deducted from the case analysis and encompass subsidiarity, guidelines Article 37, and state support.

The subsidiarity of Member States provides room to manoeuvre on how to allocate CAP funds and budget transfers between pillars are allowed. When CAP support is not even partially reallocated, the situation where crops insurance coverage is restricted may remain the same. Farmers will continue to have only access to or take up single peril crop insurance instead of MPCI. Moreover, without extra support, the crop insurance system may result in a continuing failure with areas affected by adverse selection and excessive transaction costs.

Eligible claims in subsidised insurance under Article 37 have to fulfil a strict set of conditions. One of the main obstacles encountered is that this level of threshold is perceived as too high (i.e. 30 % at farm level or crop level) by the farming community. This high threshold is introduced in line with the principle that it is meant to be a safety net triggered only in extraordinarily adverse years. Moreover, the market can offer, being either as an insurance or mutual fund, a private-based option with lower deductibles (for mainly single peril insurance).
By transferring support from Pillar I to Pillar II, technical difficulties have emerged and increased bureaucracy and transaction costs, and hampered implementation. Member States can provide crop insurance subsidy, for single peril insurance and MPCI under state aid, without using EU support under Article 37. As such, the threshold levels are less stringent since they comply with WTO amber box rules and not green box ones. Moreover, farmers in those Member States benefit more from public support, since national CAP support is not allocated for insurance support but maintained for direct support.
1 Introduction

1.1 Positioning of the instrument in the two axis map of agricultural risk

Insurance has a long history for some specific idiosyncratic climatic perils (mainly single peril hail insurance) for main crops (e.g. cereals, oilseeds and sugar beets) in almost all Member States. Private and mutual insurers have provided insurance contracts for many years without any public support. Multiple-peril crop insurance (MPCI) is in many Member States a more recent concept as it safeguards against several more systemic risks such as drought, frost and excessive rainfall. The (dis)advantages of subsidising MPCI insurance contracts have been discussed in academic and professional circles. The main question is whether MPCI, which is partly dealing with systemic climatic risks, fits in the second layer of marketable risk Figure 1.

Figure 1 Mapping of the EU and third country case studies

Source: adapted from Cordier and Guinvarc’h 2002

1.2 Main question and related objectives of the case with expected contribution to the portfolio of cases

The main objective of the case study is to analyse the transition from single-peril insurance to MPCI, being either pure private-based or public-private under CAP. The German private MPCI approach will be cross-referenced with three typical Member States which subsidise MPCI (France, Italy and the Netherlands) within a more historical perspective. These three Member States were the only ones having implemented an insurance measure under the Article 70¹ of Regulation (EU) No. 73/2009. Subsidised insurance contracts under Article 37 of Regulation (EU) No. 1305/2013 (repealing Regulation (EC) No. 73/2009) are currently implemented in Croatia, France, Italy, Latvia, Lithuania, Hungary, Malta, the Netherlands and Portugal (Belgium (Flanders) is moving towards implementation).

¹ Article 70 defines the terms and conditions of insurance, while Article 68 introduces Article 70 for insurance in more general terms.
In a first section the overview of the regulatory context and its development is provided for the Member States under the scope of this case study. This includes specifically when Article 70 became available allowing public subsidies from CAP. Subsequently, the case study provides an analysis of supply and demand. Furthermore, preferences of policy decision-makers and other stakeholders (i.e. farmer representatives and insurance providers) on how to widen coverage from single-peril insurance to MPCI are elaborated on. Information is based on desk research, interviews conducted to elicit facts and preference used for the fact sheet and survey, and dedicated questions with respect to context and evolution for the cases.
2 Desk study on evolution of multi-peril crop insurance

2.1 Regulatory context of historical development

Germany
Crop insurance has a long tradition in Germany, whereby the first crop insurance companies were founded in the 18th century protecting against hail (Bielza et al. 2008). For example, the leading insurer Vereinigte Hagelversicherung VVaG (hence referred to as Vereinigte Hagel) has provided insurance for more than 190 years. For a number of years, a more comprehensive MPCI cover is offered, also protecting against windstorms, excessive rainfall and frost. Drought coverage has been added even more recently (GDV, 2016). MPCI was launched in 2008. In late 2012, the federal government decided to align taxation levels for most perils in MPCI with the taxation level of hail insurance. Taxation levels are currently set at 19% for drought and flooding and for all other perils at 0.3‰.

The mature crop insurance market in Germany is dominated by mutual-based insurers (Bielza et al. 2008). For example, the concept of mutuality entails that members of Vereinigte Hagel are both owners and holders of policies of the mutual insurer and are entitled to participate in the basic corporate decision-making process through elected representatives in the members’ delegates’ meeting and the supervisory board. Moreover, loss adjusters are working on a voluntary basis and are elected amongst the members of the association.

In principle, premium subsidies are not provided to German farmers via state aid nor CAP support, with the exception of MPCI for wine in Saxony (under Article 37) and producer organisations for fruit and vegetables (CMO). Eligible public support is only granted for pilot projects as, for example, the drought insurance pilot (Gehrke 2017). Subsidising insurance in Germany is politically controversial, including opportunities to subsidise premiums from the CAP budget.

France
The Law no. 64-706 of July 1964 (Article 1) enabled to create a national mutual fund in France to compensate farmers against losses due to natural disasters and to support the development of crop insurance. The fund was called “Fonds National de Garantie contre les Calamités Agricoles - FNGCA”. At the same time, the CAP was beginning to support agricultural prices. Both policy measures addressing either production risks or price risks jointly secured farm incomes from adverse events.

Natural disasters losses were defined (Article 2) as losses due to large-scale non-insurable events where normal preventive measures were not effective. The financial fund resources (Article 3) were contributed by farmers via an additional percentage of traditional farm insurance premiums with variable rates with respect to the risk covered (for example fire and equipment failure). In order to develop crop insurance, premiums

---

2 http://ict-agri.eu/node/12894
4http://ict-agri.eu/node/12894
were subsidised (Article 5), with a decreasing rate over time from initially 50 % to 10 % after few years. The financial management of FNGCA was executed by the Caisse Centrale de Réassurance (CCR). Finally, a “Commission Nationale des Calamités Agricoles” (CNCA)⁵ was created (Article 12) to supervise FNGCA (areas to be compensated, rate of compensation, control of procedures and ex-post control). From 1964 to 2005, extreme adverse climatic events were managed by this mandatory mutual fund. Climatic insurance was limited to hail only.

In 2005, a new public policy, with the objective to improve the overall efficiency of the national production risk management programme, facilitated the development of complementing private insurance lines. The standard hail insurance coverage for main crops, which were running already for a long time, was expanded to include multiple climatic risks as well. Two contract types became eligible for subsidies: a “contract per crop” (with a minimum deductible of 30 %) and a “contract per farm” (80 % minimum of the farm production with a 20 % deductible). The subsidy rate was set at 65 %. From 2010 onwards, Regulation (EC) 73/2009 (Article 70) provided the opportunity to subsidise premiums from the CAP budget. France applied this regulation for subsidising crop insurance instead of financing it from the national fund as it did before.

Since the Law no. 2010-874 published in July 2010, the FNGCA has been renamed “Fonds National de Gestion des Risques en Agriculture (FNGRA)” and the CNCA renamed in “Comité National de la Gestion des risques en Agriculture (CNGRA)”. The FNGRA is still financially managed by the CCR. Basically, climatic events which were uninsurable remained so in the development of the mutual fund. Moreover, the FNGRA and the CNGRA are no more dealing quite exclusively with climatic events but are now involved with all types and intensity of agricultural risks: climatic, sanitary and environmental risks. Figure 1 illustrates the general French organisation for managing natural disaster risks, nuclear, terrorism, other major non-insurable risks and also the FNGRA within the public-owned Caisse Centrale de Réassurance (CCR). The FNGRA has three sections. Section 1 deals with sanitary and environmental risks and therefore deals with the “Fonds Mutuel Sanitaire et Environnemental (FMSE)” created in 2012 and implemented in 2013. Section 2 provides subsidies for crop insurance, mainly hail and MPCI contracts. Section 3 covers the remaining activity on natural disasters in agriculture.

⁵ Nineteen persons representing Ministries, insurers, re-insurers and technical centres,
In 2015, the number of MPCI contracts decreased compared to the previous years. Main reasons for explaining the decrease were: (i) unawareness of public subsidy level, and (ii) a preference for hail insurance with a lower threshold and a lower premium in comparison to MPCI. In response, the government invited the insurers to design a new MPCI contract, referred to as “contrat socle”, to increase the covered percentage of hectares (and farms) under MPCI. The objective of this new contract, was to cover the cost of production and not the market value. With a lower capital insured per hectare, premiums are reduced as well as public subsidy. The programmed subsidy under Article 37 was then able to support a greater number of hectares with the maximum subsidy rate of 65%. A subsidy rate of 45% is applied if farmers opt for higher levels of capital insured per crop. It is not yet clear whether the project was successful with respect to the number of hectares covered.

**Italy**

In 1970, the “Fondo di Solidarietà Nazionale” (FSN) has been established with the objectives to compensate affected farmers by natural disasters, and to support the demand for crop insurance. FSN started to show its unsustainability during periods with frequent adversities. In particular, ex-post payments incentivised hazardous behaviour (i.e. moral hazard), increased the expectation of being compensated, and disincentivised the use of crop insurance contracts (this in turn amplified the issue of adverse selection in the crop insurance market). As a consequence, the financial resources required for the FSN increased over time and the system became unaffordable.

---

Starting from 2000 there has been a series of legislative decrees issued that have reformed the Italian system. Novel feature was the introduction of a regulatory public engagement for risk management in agriculture facilitating structuring the market for subsidised farm insurances. In 2004, the aforementioned legislative decrees were aggregated into one single decree (No. 102/2004), which also established the specific rules for subsidised crop insurance contracts. A structural modification was that public support was shifted from ex-post compensation to ex-ante interventions and payments (e.g. subsidised crop insurance premiums), and, moreover, they are shifted from single peril policies to multi-peril policies. Crop insurance contracts were subsidised up to 80% of the premium for policies that compensate losses exceeding 30% of losses.

A key role was assigned to “Consorzi di Difesa” (CONDIFESAs), which manage most agricultural insurances. The CONDIFESAs, for mutual purposes, operate since the early 1970s as a network of experts in designing insurance cover for the risks of economic losses caused by atmospheric adversity on crops and on corporate structures, from epizootic diseases in livestock breeding, plant diseases and parasitic infestations on plant productions. Using data and information produced annually on the territory, they are able to evaluate historical trends and study new solutions each year to be offered to insurance market operators. Put differently, the CONDIFESAs enable farm cooperatives in providing services to farmers including administrative support regarding CAP policies. Moreover, CONDIFESAs enable collective bargaining with insurance companies (i.e. demand concentration), consultancy regarding the choice of the insurance contracts by means of private brokers, and payments of public contribution in advance.

The CONDIFESAs have become a reference point for agricultural entrepreneurs: entrepreneurs increasingly need specific skills to plan the development of their medium and long-term business. Groups of farmers organised via CONDIFESAs are, at national level, associated in ASNACODI.

Italy set a maximum subsidy limit of 65% of the premium in 2010 to align it with the provisions under Article 70 (Reg. CE 73/2009). It should be noted that 2009 was an exceptional year whereby financial resources were insufficient to cover losses. As a result, in 2010 (Law no. 191/23/12/2009) financial resources allocated for crop insurance increased considerably. Subsidised premium volume followed Article 70 provisions, specifying that it would have not exceeded 10% of the national envelope (the national envelope refers to the overall ceiling on the funding for direct payments allocated to each Member State and, in the current context, the share of direct payments over which Member States have some discretion over how to allocate these payments).

Since 2015, in order to reduce premiums and increase participation, the national insurance plan (Piano Assicurativo Nazionale, PAN) abolished the multi-peril public policies for crops and distinguished three types of insurable adversities: infrequent perils (flood, freezing, frost, and drought), frequent perils (excess of rain, excess of snow, hail and windstorms), and additional adversities (sunstroke, hot wind and temperature jumps). The Ministerial Decree 162 of 12/1/2015 introduced the Piano Assicurativo Individuale (PAI) as required document for the eligibility of subsidies in the crop insurance market. The PAI includes historical information on crop insurance contracts stipulated by the individual farmer, as well as data on yields, insured quantities and insured values, in order to guarantee an improved monitoring of the subsidised insurance market. According to the PAN 2016, farmers may insure against all adversities, or against all catastrophically adversities and at least one frequent
adversity, or against at least three frequent adversities, or against all catastrophic adversities. For further background information, we refer to Santeramo et al. (2016), Ramsey and Santeramo (2016), Enjolras and Santeramo (2016) and Santeramo and Ramsey (2017).

**The Netherlands**

Commercial insurance schemes have been marketed successfully in the Netherlands to safeguard farmers against hail losses for a long time now. Some insurers provide all types of agricultural and non-agricultural coverage, while others offer only special, targeted mono-line coverage for farmers. Most Dutch companies providing agricultural insurance are organised as mutual insurers (Melyukhina 2011).

In response to the large scale disaster relief program in 1998 triggered by excessive rainfall, the national government supported several single-peril insurance schemes. Two mutual insurers launched an excessive rainfall scheme following heavy rainfall losses in 2002. A substantial part of the insured farmers had to participate for at least five years in order to receive disaster relief for losses incurred in 2002. The introduction of frost insurance scheme for the fruit sector in 2007 followed a frost event which severely damaged fruit tree orchards. The government undertook to indemnify losses to the sector provided the sector would set up an arrangement to insure against frost in the future. A similar approach was followed after a severe snowfall event in 2005. In all of these aforementioned single-peril insurance schemes, not only did the government contribute to compensating losses in the starting year, but also provided non-proportional reinsurance scheme (at a low rate). All these single-peril insurance schemes have not been highly successful as farmers demand was low and mainly affected farmers subscribed in order to be eligible for disaster relief.

Subsidised MPCI under Article 70 was introduced in 2010 with the objective of the Dutch government to expand crop insurance and to shift away from ad hoc payments and case-based insurance support as occurred numerous times in the past. To increase demand for the multi-peril insurance, a maximum of 65 % of the premium is subsidised following current regulations, thereby exploiting the opportunities of subsidising premiums opened under the EU framework (single peril crop insurance is explicitly excluded from subsidy). Since the annual premium ceiling is set at approximately €9 million and outreach increased over time, the subsidy level was decreased in 2016 for the first time (62 % of premium subsidised in 2016). From 2017 up to 2020, the ceiling is raised to €20 million per year, with the expectation to increase uptake in the coming years.

2.2 Supply

**Germany**

Approximately 14 insurers provide crop insurance in Germany, all of which, with the exception of Vereinigte Hagel, only offer hail insurance (Table 1). Vereinigte Hagel is the main market player, with a market share of approximately 60 % (Bielza et al. 2008). Vereinigte Hagel is Europe’s leading insurance company for weather-related crop failure7, with markets in Germany, the Netherlands, Croatia, Latvia, Lithonia, Luxembourg, Italy and Poland8.

8http://www.vereinigte-hagel.net/start/
Table 1: Concentration of crop insurance supply (number of insurance companies)

<table>
<thead>
<tr>
<th>Member State</th>
<th>Number of insurers</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>14</td>
<td>Leading insurer has 60% market share hail insurance. Only leading insurer provides MPCI.</td>
</tr>
<tr>
<td>France</td>
<td>9</td>
<td>Leading insurer has 52% market share. Three insurers have approximately 75% market share. They all offer MPCI.</td>
</tr>
<tr>
<td>Italy</td>
<td>25</td>
<td>The three largest insurance companies, offering single peril, several peril, and/or more extensive MPCI, have more than 35% market share.</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>4¹</td>
<td>Four insurers provide both MPCI and hail insurance, a few insurers more provide only hail insurance.</td>
</tr>
</tbody>
</table>

¹ There are more insurers offering hail insurance but with relative low market share.

France

The French federation of insurers (Fédération Française de l'Assurance, FFA) reported that in 2016 in total 9 insurers were offering crop insurance. The leading company, Groupama SA, has a market share of 52% in the agricultural sector, while Crédit Agricole Assurances and Axa serve 15% and 9% of the market respectively.

Italy

The Italian insurance market comprises approximately 17 insurance companies providing crop insurance, with the three largest companies (Cattolica, FATA, and TORO) serving more than 35% of entire market. Competition is stiff and based mainly on contract quality (i.e. terms and conditions of the insurance policy) rather than on premium levels.

The Netherlands

Four mutual insurers offer MPCI (Achmea, Agriver, OFH and Vereinigte Hagel). Achmea temporarily withdrew from the MPCI market because of lagging demand but is re-entering the market from 2017 onwards. Market shares are not publically reported because of a concentrated and competitive agricultural insurance market. Competition is besides on premium levels also on flexibility of the contract (which perils and level of deductibles). Since most agricultural insurers are mutually based, they are non-profit organisations.

2.3 Demand

2.3.1 Uptake

Germany

In Germany, uptake of hail insurance is common practice ((Table 2) with approximately 8 million hectares insured (72% of total agricultural area) representing an insured value of €20 billion. On the contrary, MPCI has a more marginal market share with a coverage of 0.5 million hectares (4%-5% of total agricultural area). The majority of MPCI area insured comprises maize and rape seed, safeguarding it from relative frequent windstorms in addition to hail. Note that farmers can choose themselves which perils are included in MPCI coverage. Despite access to MPCI covering more infrequent but catastrophic risks (i.e. drought, frost and flooding), uptake was only 0.5% of total agricultural area in 2015 (GDV, 2016).
Crop insurance uptake¹

<table>
<thead>
<tr>
<th>Member State</th>
<th>Hail insurance (%)</th>
<th>MPCI (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>72 % (area)</td>
<td>4 %-5 % (area)</td>
</tr>
<tr>
<td>France</td>
<td>32 % (of agricultural area)</td>
<td>Cereals: 28 % (of agricultural area) Vineyards, fruits and vegetables: 1%-2 % (of agricultural area)</td>
</tr>
<tr>
<td>Italy</td>
<td>Limited</td>
<td>50 % (of professional farms)</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>&lt;10 % (of production value)</td>
<td>Fruits: 22 % (of total farms) Arable: 7 % (of total farms)</td>
</tr>
</tbody>
</table>

¹ Depending on available information expressed as percentage of agricultural area insured, percentage of farms insured, or percentage of production value insured.

France

Boyer (2008) indicates that cereal farmers started insuring their crops as FNGCA was not effective for them. On the other hand, producers of wine, fruits and vegetables did not, as FNGCA was satisfying for them. Table 3 illustrates the development of the MPCI contract for the period 2005-2014. In 2014, the percentage of agricultural area under hail insurance was 32 % and under MPCI 28 % for main crops and 1 % to 2 % for vineyards, fruits and vegetables (hail and MPCI protected areas covered 5 and 4,66 million hectares respectively). Total insured value amounted € 6.64 billion for MPCI. The annual public subsidy has been rising from € 17 million in 2005 to € 118 million in 2014 (and € 118 million in 2015).

Table 3

Crop insurance market in France (2005-2014)

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total premium MPCI (million €)</td>
<td>49,1</td>
<td>57,1</td>
<td>68,6</td>
<td>90,9</td>
<td>78,3</td>
<td>88,0</td>
<td>118,0</td>
<td>146,3</td>
<td>167,9</td>
<td>181,1</td>
</tr>
<tr>
<td>Total subsidy MPCI (million €)</td>
<td>17,2</td>
<td>20,0</td>
<td>24,0</td>
<td>31,8</td>
<td>23,5</td>
<td>54,1</td>
<td>71,4</td>
<td>88,0</td>
<td>74,0</td>
<td>117,7</td>
</tr>
<tr>
<td>Subsidy rate MPCI (%)</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>30</td>
<td>61</td>
<td>61</td>
<td>60</td>
<td>44</td>
<td>65</td>
</tr>
<tr>
<td>Uptake MPCI (%) of acreage</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>26</td>
<td>24</td>
<td>27</td>
<td>29</td>
<td>29</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Uptake single peril hail or MPCI (%) of acreage</td>
<td>49</td>
<td>49</td>
<td>47</td>
<td>52</td>
<td>60</td>
<td>59</td>
<td>59</td>
<td>63</td>
<td>62</td>
<td>62</td>
</tr>
</tbody>
</table>
Italy

Notably, although the subsidies on crop insurance have not been scarce (apart from 2009) and the risk management tool set (subsidiised and non-subsidiised insurance) has increased over time, participation has been low and stable over time. In total, 85,000 farms have crop insurance, out of approximately 1.6 million registered farms. However, in terms of percentage of professional farms, adoption rate is approximately 50%. In 2015 and 2016, the insurance campaigns have shown a reduction of insured values for crops. In the subsidiised crop insurance market, the total insured value under hail insurance or MPCI amounted to €5 billion in 2016. In 2016, 86% of subsidised insurance contracts have been sold in the North (9% in the Centre and 5% in the South). Moreover, only a limited number of high value crops, mostly grown on specialised farms in the North of Italy, are insured. For instance, in the subsidiised crop insurance market, fruit crops are most relevant based on total insured values (25%), followed by wine yards (19%), corn (11%), rice (10%), tomatoes (8%) and other crops (27%).

While participation in crop insurance programs has been low for years, it is worth noting that there has been a growth in the total area insured, not matched by a proportional diffusion of insurance contracts across new producers. Differently, the expansion of insured areas has been mainly due to the obligation to insure the entire cropped area for a given product (Santeramo et al., 2016; Santeramo, 2017). Since 2004, the state contribution has been growing due to a rapid growth in multiple perils policies, while the share of contracts providing coverage on single perils decreased substantially (Table 4).

Table 4

Crop insurance market in Italy (2004-2014)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificates</td>
<td>000</td>
<td>212</td>
<td>211</td>
<td>265</td>
<td>208</td>
<td>214</td>
</tr>
<tr>
<td>Insured land</td>
<td>000</td>
<td>982</td>
<td>1125</td>
<td>1450</td>
<td>1153</td>
<td>na</td>
</tr>
<tr>
<td>Insured value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>million €</td>
<td>3.710</td>
<td>3.789</td>
<td>5.436</td>
<td>5.313</td>
<td>6.826</td>
<td>7.951</td>
</tr>
<tr>
<td>Total premium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>million €</td>
<td>177</td>
<td>265</td>
<td>338</td>
<td>285</td>
<td>321</td>
<td>485</td>
</tr>
<tr>
<td>Indemnities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>million €</td>
<td>152</td>
<td>149</td>
<td>272</td>
<td>169</td>
<td>231</td>
<td>316</td>
</tr>
<tr>
<td>Public contribution *</td>
<td>%</td>
<td>56,8</td>
<td>66,6</td>
<td>66,3</td>
<td>66,4</td>
<td>na</td>
</tr>
<tr>
<td>Mono risk policies +</td>
<td>%</td>
<td>92,0</td>
<td>77,4</td>
<td>53,7</td>
<td>50,2</td>
<td>40,2</td>
</tr>
<tr>
<td>Pluri risks policies +</td>
<td>%</td>
<td>7,7</td>
<td>19,6</td>
<td>40,0</td>
<td>46,6</td>
<td>52,8</td>
</tr>
<tr>
<td>Multi risks policies +</td>
<td>%</td>
<td>0,3</td>
<td>2,9</td>
<td>6,3</td>
<td>3,3</td>
<td>6,9</td>
</tr>
</tbody>
</table>

(*) Premiums/insured value. na indicates not available.

(+) The statistic refers to the percentage of the total insured value.

Source: Adapted from Santeramo et al. (2016) and Santeramo (2017)

The Netherlands

Prior to the introduction of the subsidised MPCI in the Netherlands, the overall value insured under single peril hail insurance was approximately €1.5 billion, which was
about 50% of the total field crop value (Melyukhina, 2011). Since the launch of MPCI, hail insurance cover has been crowded out, but to which extent is not publically reported anymore because of competition issues. Only the number of farms under subsidised MPCI and the subsidy amount are publically available and annually reported (Table 5). Since the start of the Dutch subsidised MPCI scheme in 2010, the adoption has been growing steadily up to approximately 22% of the fruit producers and 7% of the arable farms in 2015 (Berkhout et al., 2017).

Table 5 Multi-peril crop insurance market in the Netherlands (2004-2014)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farmers insured</td>
<td>462</td>
<td>538</td>
<td>552</td>
<td>574</td>
<td>705</td>
<td>1.189</td>
<td>±1.700</td>
</tr>
<tr>
<td>Total subsidy (million €)</td>
<td>3,1</td>
<td>4,3</td>
<td>4,8</td>
<td>5,3</td>
<td>5,6</td>
<td>7,8</td>
<td>±9</td>
</tr>
</tbody>
</table>

Source: Adapted from Berkhout et al., 2017

2.3.2 Premiums

**Germany**

Premiums are depending, among others, on selected deductible and, type of perils covered. As such, premium rates for hail insurance products are heterogeneous, with an average rate of 1,14% of insured amount (Table 6). Due to competition reasons more detailed information is not publically revealed (Bielza et al. 2008). The most common hail insurance products of numerous companies have a bonus-malus system, but farmers can also opt for a fixed premium.

Table 6 Crop insurance premiums (average per crop as percentage of insured amount)

<table>
<thead>
<tr>
<th>Member State</th>
<th>Hail insurance</th>
<th>MPCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>1,14% for arable crops</td>
<td>Not publically available</td>
</tr>
<tr>
<td>France</td>
<td>2,15% for all crops</td>
<td>3% for wheat</td>
</tr>
<tr>
<td></td>
<td>1,40% for grains</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4,40% for rapeseed</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>10% for apples</td>
<td>5% for field crops</td>
</tr>
<tr>
<td></td>
<td>25% for artichokes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,50% for barley, wheat, corn</td>
<td></td>
</tr>
<tr>
<td>The Netherlands</td>
<td>0,5% for arable crops</td>
<td>On average 1% for arable crops</td>
</tr>
</tbody>
</table>

**France**

In France, average hail insurance premiums amount to 2,15% of insured amount, while for grains and rapeseed premiums are set at 1,40% and 4,40% respectively. MPCI premiums for wheat are set at 3% and up to 5% for other grains and oilseeds. Total MPCI premium volume exceeded total hail insurance premium volume (FFSA 2016).

**Italy**

Premiums are differentiated across regions, crops and type of insurance (i.e. single-peril versus multi-peril). Apples, which is a main crop under hail insurance, has an average premium of 10% of insured amount. The highest hail insurance premiums are paid for artichokes (up to 25%), and the lowest are for barley, wheat and corn (around 1,5%). Higher hail insurance premiums are paid in the Northern Regions, due to the high value of the insured crops (i.e. high added-value per hectare), which is a more hail prone area with an average of 6%, with highest values in Trentino-Alto Adige (10%). Lowest premiums are paid in the South, where extensive crops are insured (i.e. low added-
value per hectare), with an average of 4.5% (highest values in Sardinia of 16%, and lowest values in Sicily of 3%). The average premium for MPCI is approximately 5% for field crops.

**The Netherlands**

Hail risk premiums are differentiated according to the susceptibility of crops (e.g. higher premiums for fruit, since quality loss is an important factor e.g. losses after a hail storm). Insurers also defined separated hail-prone locations in which premiums for coastal regions are lower than the interior regions. A maximum discount of 65% of the base premium can be obtained at coastal regions versus no discount at high hail prone locations (Van Asseldonk et al. 2002). The overall average risk premium amounts to approximately 0.50% of the insured amount for arable crops. At the start of MPCI, the average premium was set at a level of approximately 1% of the insured sum for arable crops, but insurers do deviate from it based on for example type of crop and location. Total MPCI premium amounted €14.5 million in 2015 (subsided at a level of 62% which implies that €9 million stems from public resources). Due to competition reasons, more detailed information is not publically revealed; only the total MPCI premium amount is disclosed since this is obligatory for receiving premium subsidies.

2.3.3 **Deductible**

**Germany**

Farmers can choose out of a range of deductibles for hail insurance and as such levels of deductibles are heterogeneous, with an average rate of 8% of the loss for arable crops and 10%-25% of the loss for fruits and vegetables (Table 7). For some specific crops, farmers can choose a “floating” deductible, in which the actual deductible depends on the loss ratio incurred per field (ranging from 0-25% deductible). Moreover, deductibles at farm level are also an option for farmers to choose from, but they are rare.

<table>
<thead>
<tr>
<th>Member State</th>
<th>Hail insurance</th>
<th>MPCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>Arable: 8% (loss) Fruits and vegetables: 10%-25% (loss)</td>
<td>Not publically available</td>
</tr>
<tr>
<td>France</td>
<td>Up to 10% (loss)</td>
<td>Per crop: 30% (insured amount) Per farm: 20% (insured amount)</td>
</tr>
<tr>
<td>Italy</td>
<td>Per crop from 10% to 30% (insured amount)</td>
<td>Per farm from 10% to 30% (insured amount)</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>Arable: 3%-10% (loss)</td>
<td>Per crop: 30% (insured amount)</td>
</tr>
</tbody>
</table>

**France**

Two types of MPCI contracts can be subsidised at a 65% rate of subsidy: a “contract per crop” (30% of minimum deductible and 30% of threshold of loss) and a “contract per farm” (80% minimum of the farm production with a 20% deductible and 30% of threshold of loss). The second contract has a low rate of use and is offered just by one insurer, a large but not the leader one. With regard to the contracts per crop, farmers can decrease (referred to as “buy-back”) deductibles up to 25%. The subsidy is then set at a 45% level for the layer of better coverage. There is no public subsidy if deductibles are below 25% (and this also holds if value insured is above market price).
Italy
Given a thresholds of 30% at farm level, some insurers offer contracts with fixed deductible levels, others offer a range of deductible levels to choose from. In the latter case deductibles can vary, according to the contract, from 10% to 30%.

The Netherlands
Dutch farmers can choose out of a range of deductibles for hail insurance, and ranges from 3% up to 10% of the loss for arable farmers. The deductible for subsidised MPCI is fixed at a level of 30% of the insured amount per arable crop. For fruit crops, farmers have the option to choose a “floating” deductible in which the actual deductible depends on the loss ratio incurred. The deductible decreases with the increase of the losses, up to a minimum level of 10% if the losses exceed 90%.

2.3.4 Losses and indemnities

Germany
Weather-related yield losses were substantial in Germany between 1990 and 2013, and averaged €512 million per year (Table 8), ranging from €90 million up to €2,3 billion with an upward trend (GDV, 2016). Most prominent perils were on average drought (€276 million per year), hail (€134 million per year), severe frost (€42 million per year), flooding (€33 million per year), storm and excessive rainfall (€27 million per year).

<table>
<thead>
<tr>
<th>Member State</th>
<th>Annual crop losses average (and range)</th>
<th>Annual indemnities average (and range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>€512 million (€90 million - €2,3 billion)</td>
<td>Not publically available</td>
</tr>
<tr>
<td>France</td>
<td>€1,2 to €1,5 billion</td>
<td>€169 million MPCI (€88 – 341 million)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>€109 million hail insurance</td>
</tr>
<tr>
<td>Italy</td>
<td>€5.6 billion in 2015</td>
<td>€200 million in 2015 (€140 million - €315 million)</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>€12 million disaster aid (maximum loss €443 million)</td>
<td>Not publically available</td>
</tr>
</tbody>
</table>

France
Babusiaux (2000) estimated the total crop loss due to climatic events to €1,2 billion per year. More recently, the French Ministry of Agriculture published a report9 on agricultural risk management with an estimated €1,5 billion of loss due to climatic events on average per year. Crop losses are approximately between 2% and 3% of the total French production value.

In France, for the period 1980-2004, the total annual costs for disaster compensation and hail losses amounted €400 million, with €92 million of public subsidy (€82 million for FNGCA and €10 million for mainly hail insurance) (Boyer 2008). The FNGCA compensated on average €165 million per year, mainly for vineyards, orchards (frost) and forage (drought). Grains and oilseeds were not compensated during the period. From a geographical perspective, premiums raised in the North of France were used to compensate losses in the Massif Central (south-centre) and South of France. More recent

---

claim statistics reveal an average annual pay-out of €169 and €109 for MPCI and hail insurance respectively.

**Italy**

In 2015, the losses have been €5.6 billion, unevenly distributed across regions (81% in the North, 9% in the Centre and 10% in the South). The indemnities paid in 2015 have been €200 million (€175 million in the North and only €9 and €16 million in the Centre and in the South, respectively).

In Italy, the indemnities have been almost stable, ranging, in the period from 2004 to 2015 from a minimum of €140 million to a maximum of €315 million.

**The Netherlands**

Average nominal disaster relief amounted approximately €12 million per year in the 25 years before subsidised MPCI was introduced. Apart from some relatively small relief programmes, a decree has been issued four times in the past 25 years. The initiated relief programmes included the perils caused by drought, frost and precipitation. During a severe drought in 1976, an amount of approximately €255 million was claimed by producers, of which €132 million was indemnified by the Dutch government. As a result of a severe frost period in 1985, an estimated loss in Dutch agriculture of €45 million occurred and this was partly publically compensated. In 1998, two severe rainfall events in different regions resulted in major crop losses with projected losses for the two regions of €210 million and €115 million. In other regions the estimated total loss was €118 million.
3 Preferences of stakeholders with respect to MPCI transition process

Preferences of policy decision-makers and other stakeholders (i.e., farmers representatives and insurance providers) on how to widen coverage from single-peril insurance to MPCI are based on the survey among stakeholders involved (see Appendix). Main results of the survey for the other Member States which have introduced subsidies under Article 37, or without any plan in their RDP to apply for support under Article 37, are described in theme 4. The standard survey is complemented for the four case countries with follow-up questions for clarification and extra analysis.

3.1 Pathway and public support

The chosen pathway of widening coverage differs per case Member State (Figure 3). In summary, in the analysed Member States more frequent and independent risks are classified as business risks which farmers can cope with by taking up insurance, either single-peril (less and less subsidised in the EU) or multiple-peril insurance (which tend to be more and more subsidised in the EU). More catastrophic and systemic risks are classified as risks causing market failure in France, Italy and the Netherlands providing arguments for public support via premium subsidies, while this has not been the decisive argument in Germany. More background and the view of stakeholders are elaborated on in the subsequent sections.

Figure 3  Mapping of the case and reference Member States

Germany
The German tradition and ambition is to create conditions for liberalisation and Germany therefore is reluctant to subsidise agricultural insurance (with the exception of some pilots and targeted sectors and some indirect support, since Germany has reduced insurance tax rates for specific perils). In general, public support is a political controversy. The key principle is that farmers themselves should make risk management decisions in balancing risks and returns. Provision of subsidised insurance would distort optimal farm production decisions. Besides operational on-farm decisions (e.g.
diversification), German farmers have tax-based options to smoothing earnings. In addition, the availability of ad-hoc state disaster relief makes the demand for insurance less relevant.

Cross-national comparisons in the past revealed that German farmers are downplayed on competitiveness due to a distortion of competition as a result of subsidies in other Member States. Only in recent years, with decreasing commodity prices, the issues of cost of production and competitive disadvantages have gained importance. Societal acceptance of subsidies is limited because of potential risks of rent seeking opportunities of the insurance industry and farming community.

Implementing subsidised insurance would necessitate a radical system shock requiring high efforts. Moreover, public-private arrangements require sharing responsibilities between the national level and the German federal states. More specific, there are alternatives available since private insurance market is a mature and private-based market. Yet, it should be noted that the transition from single-peril insurance to MPCI is up to now not very successful in terms of adoption rates.

**France and Italy**
Market failure was not a new argument for public support in France and Italy, since both Member States had a long history of compensating farmers against losses due to natural disasters and supporting the development of crop insurance. Since the efficiency of the mutual funds in France and Italy (i.e. FNGCA and FSN respectively) was under debate, both were restructured into a public-private insurance scheme. The key policy reform was to reduce direct public ex-post compensations and move closer to market solutions (transition from a national fund to public-private insurance schemes). Ex-post compensation was financially not sustainable and insurance would provide a more immediate indemnification response. The public contribution to cover part of the costs allowed farmers to participate to these instruments at accessible costs, with a positive financial result in the medium term, and with a guarantee of protection that allows the company to invest in business innovation and therefore to be competitive.

**The Netherlands**
The Dutch government went along with the general trend of moving away, after a crisis, from ad-hoc payments towards a system of public-private partnerships. A (temporary) premium subsidy in the Netherlands was justified by policy makers in light of market failure hampering the establishment of MPCI to complement private-based hail insurance. The duration of temporary support comprised the period from 2010 up to 2014, but has been prolonged ever since. Market failure was identified with respect to asymmetric information since time-series of claims were lacking. Moreover, the initial years with low uptake were expected to be cost-inefficient (i.e. fixed costs of running an insurance company with limited number of policy holders).

3.2 **Temporary versus permanent subsidies**
The chosen pathway of widening coverage by means of premium subsidy is elaborated on with respect to whether or not the envisaged public support is limited in time (i.e. temporary support in starting up phase) or more a permanent.

**Germany**
Temporarily subsidising MPCI was not considered within the tradition and ambition of creating conditions for liberalised agricultural insurance not even with low adoption rates (4%-5% of total agricultural area, mainly for limited extension of the standard hail coverage and 0.5% for MPCI). Only some pilots were eligible for temporary public support in the field of index-based drought insurance (and MPCI scheme for wine producers in Saxony).

**France and Italy**

The evolution into the current French and Italian insurance schemes is basically similar to each other in origin and fits in the culture of endorsing social protection programmes with the objective of smoothening and enhancing agricultural incomes. Historically, both Member States are among the first to subsidise insurance in agriculture. The established public supported national funds to safeguard affected farmers from natural disasters were transformed from 2010 onwards to become eligible for CAP premium subsidies. The French and Italian public support by means of premium subsidies is more permanent in nature as in the past.

**The Netherlands**

The Dutch government role lies in supporting the MPCI insurance market to develop, thereby enabling the transition from a private single-peril to MPCI coverage. Within the liberal Dutch policy context, a temporary premium subsidy was agreed upon between policy makers and the farming community. It was argued that, after the initial years, sufficient claim statistics would be gathered, enabling a more accurate risk rating and premium differentiation. Moreover, transaction costs would be relatively reduced once a mature MPCI had been established. Originally, the duration of premium subsidy comprised the period from 2010 up to 2014, but support was prolonged the successive years afterwards. Recent impact study revealed that MPCI is still not commercially viable given the low rates of adoption, but increasing at a constant pace over time. Insurers and farmers organisations indicate that MPCI supply and demand will cease to exist if subsidies are to be abandoned and the market would return to a single-peril coverage (Berkhout et al. 2017).

### 3.3 Allocation of CAP national envelopes

The risk management toolkit of which insurance for crops for adverse climate events is the most prominent one (Article 70) was first introduced in Pillar 1 ('Market related expenditure and direct payments') in CAP period 2007-2013 as a specific support programme for vegetables, fruit and grapes. Later, under the Health Check of 2009, its scope was expanded to include all crops (Regulation (EC) No. 73/2009). The most recent CAP reform (2014-2020) retained the two-pillar structure of the policy but provided Member States with more flexibility: the agricultural risk management measures were transferred from Pillar 1 to Pillar 2 ('Rural Development'), and budget transfers between pillars are allowed\(^\text{10}\). Therefore, Member States have more room to manoeuvre on how to allocate public support for specific groups of farmers (e.g. those willing to insure).

**Germany**

\(^{10}\text{The 2013 CAP reform permits Member States to transfer up to 15% of their direct payment envelope (which is part of pillar 1) to their Rural Development envelope (pillar 2). Alternatively, Member States may make a transfer in the opposite direction (i.e. up to 15% of their Rural Development envelope to their direct payment envelope. https://ec.europa.eu/agriculture/glossary_en}
Both state representatives and the farming community representatives have a limited willingness to open up a new public support measure. In general, direct payments available under Pillar 1 are believed to constitute a sufficient basis for adequate risk management. Germany farmers’ associations are reluctant to transfer budgets because subsidised MPCI is regarded as a replacement for direct support under Pillar 1, and would thus go along with a reduction of direct payments. Potential high adoption rates of MPCI with subsidies in line with Article 37 means either less for direct payments or other rural development measures (or both). Direct supply of financial support is perceived as more attractive, offering more flexibility from agriculture’s point of view.

**France**
The government had always supported the development of crop insurance, starting with hail insurance, then MPCI since 2005 and, the “contrat socle” since 2016. French farmers’ representatives supported subsidies, including when part of EU direct payments were used to support the insurance scheme, in contrary to their German counterparts who prefer direct payments only.

However, the development of the insurance scheme is challenged by alternative national policies, such as tax exemption and partial exemption of social payments. In terms of budget, the expenditures for such policies have been on average €219 million per year when the insurance subsidy was €118 million in 2015 (CSO report 2017 p. 9). The planned expenditures for crop insurance and mutual fund FMSE are €541 million for the period 2014-2020. The level of direct payments in 2015 was €7590 million and the total spending for EAFRD was €820 million in the meantime. The current budget dedicated to the insurance scheme may be considered as marginal, but has been expanded in the past decade by increasing outreach (more insured acreage and thus premium volume) as well as by increasing the rate of subsidy.

**Italy**
In terms of budget allocation as allowed by Article 70, for the period 2010-2014 Italy assigned €70 million to subsidies crop insurance.

In the current programming period, Italy has programmed budget for Article 38 (mutual funds) and Article 39 (Income Stabilisation Tools) to promote new risk management instruments in order to (indirectly) stimulate farmers using risk management strategies other than crop insurance schemes. Moreover, the contribution for crop insurance under Article 37 amounts to €1396.8 million, with no subsidies granted for single peril insurance. The budget (allocated for pluri and multi-peril crop insurance contracts) was increased in order to promote crop insurance that was suffering from low participation issues due to lack of culture, trust and flexibility. In 2015, the subsidies have been switched to promote a system that offers multiple coverages for different sets of adversities (the so-called “pacchetto A”, “pacchetto B”, and “pacchetto C”): such a change strengthens the relevance that has been attributed to multi-peril crop insurance contracts.

**The Netherlands**
Total allocation of direct payments and rural development for the Netherlands is about €6 billion for the period 2014-2020. The budget for direct payments amounts to around €5,2 billion for the corresponding period (approximately €800 million per year)\(^\text{11}\). Budget allocation discussions with respect to the amount of insurance subsidy did not play a prominent role in the Netherlands, since the Dutch national envelope was not

assigned yet when MPCI was launched (i.e. 2010). Farmers’ representatives endorsed allocating these residual funds for risk management measures and not to use them for other eligible support programmes (e.g. agri-environmental measures). It was anticipated that a substantial amount of the budget would be utilised by the more risk prone fruit sector. Note that the fruit sector was at that time not eligible for direct support, but could be supported with premium subsidies. The actual premium subsidy increased from €3,1 million in 2010 to €7,8 million in 2015 given a subsidy rate of 65 %. It was agreed upon that the subsidy rate would be decreased in case the ceiling set at €9 million was hit. Because of increasing demand the subsidy rate was lowered to 62 % in 2016. From 2017 up to 2020 the ceiling will be raised to €20 million per year declining the direct payments only marginally. Although farmers’ organisations were not unanimous in favour of this trade-off, the competent authority prioritised to expand MPCI subsidies, since they had proven their efficacy during a recent hail and excessive rainfall event in 2016. Disaster relief was not triggered, with the rationale that the government already supported MPCI, and thus enabling farmers to obtain coverage for which otherwise a disaster relief programme might be issued (for example excessive rainfall which was a non-insurable peril before the Dutch government stepped in the MPCI market by means of subsidies).

3.4 Encountered obstacles Article 37 for widening coverage

Eligible claims in subsidised insurance under Article 37 have to fulfil a strict set of conditions. Vital is that support may only be granted for losses exceeding 30 % (i.e. threshold) of the average annual production of the farmer in the preceding three-year period or a three-year average based on the preceding five-year period, excluding the highest and lowest entry. Per case Member State the potential link between the aforementioned conditions and the chosen pathway of widening coverage is analysed.

**Germany**
In Germany, a threshold of 30 % in line with Article 37 regulation was found to be too restrictive by the farming community according to farmers’ representatives and insurers. Single-peril crop insurance is on the market with substantial lower deductibles (and thresholds), and this would also be demanded for MPCI.

**France**
In France, the threshold of loss of 30 % is considered as high but insurers have been able to offer contracts to farmers with lower deductibles and threshold of loss. The full rate of public subsidy is related to a 30 % loss and a lower rate is not subsidised but the insurers are “averaging” the offered rate of subsidies. Therefore, the issue is more related to the premium value rather than the threshold of loss. A very important constraint of the contract is related to the historical yield. Due to climatic events in the recent years, the historical yield of farmers tend to decrease and therefore farmers are reluctant to buy MPCI insurance at low level of capital per hectare. Insurers are offering a capacity to buy-back some additional yield for increasing the farmers’ historical yield, but again inducing higher premium levels and lowering the farmers willingness to pay.

Finally, it is believed that the benefits of the MPCI must be better supported by various prescribers in addition to the insurers’ sales force. The MPCI deserve efforts in explanation and promotion with adequate communication devices, as a collective investment of professional organisations (from farmers’ unions, sectorial and multi
seCTORIAL, to mutual insurances). The Ministry of Agriculture and the Comité National de Gestion des Risques Agricoles (CNGRA) is providing a brochure for explaining (with answers to FAQ) the MPCI cycle, from subscription to compensation with practical examples, targeting the different networks of prescribers.

**Italy**

In Italy, the deductibles of 30 % at farm level are perceived to be too high. Several private insurance companies offer flexible contracts with threshold and deductibles that can be chosen over a range of values. The tendency is to move towards a set of contracts with lower deductibles (not higher than 20 %) and lower threshold (not higher than 20 %). Lowering the threshold is likely to attract new clients that perceive the actual system not able to compensate the vast majority of losses suffered by farmers. Moreover, the transition toward multiple peril crop insurance is likely to solve the difficulty of linking the losses to specific adversities: in other words, multiple peril crop insurance contracts are able to cover farmers’ losses in a larger majority of cases, and are therefore more attractive as a compensative/risk management tool.

**The Netherlands**

The high level of deductible for MPCI is rationalised by policy makers not only to align it with Article 37, but also in light of past ad-hoc compensation levels, and more in general that public support should be targeted towards catastrophic events only and not to smoothen normal risks. From the insurers’ point of view, MPCI could only be offered at these threshold and deductible levels given the limited willingness to pay for such product. However, a debate is ongoing on the interpretation of the threshold regulations and feasibility of specifying the threshold at field level or at crop level.

3.5 **General outlook**

**Germany**

In a recent outlook by GDV (German underwriting association), several reforms were proposed. Until recently, hail was the main peril farmers were exposed to, rationalising uptake of only hail insurance coverage. However, global warming has changed farmers’ risk profiles as a result of more frequent droughts and spring frosts with subsequent severe losses. In addition, the ongoing trend of farm specialisation and farm expansion (with larger shares of rented farmlands and more need for credit) has raised the demand for multi-peril coverage. German farmers find themselves in a disadvantaged position compared to their European colleagues, when trying to adapt their coverage to this new situation, since they are not entitled for public financial assistance. GDV concludes that German farmers are in need of government subsidies in order to be able to obtain comprehensive and affordable insurance coverage against the cumulative risks “drought” and “flood” in line with common practice in other EU Member States (GDV 2016).

**France**

In France, the main framework of the 1964 Law has been maintained over time up to 2017, but criticisms on the functioning of the FNGCA and required adaptations to the changing French agriculture induced new steps in the development of crop insurance. A
study commissioned by the Ministry of Agriculture and the Ministry of Finance (Babusiaux, 2000) presented the limits of the FNGCA: unfair repartition of compensation, low rate of compensation, delays and no development of crop insurance ahead of the historical hail insurance. The study suggested improvements of the current system. Two propositions have been implemented later: the development of private crop insurance with the support of public subsidies (pilot test of crop insurance for vineyards and orchards and MPCI for grains and oilseeds) and the creation of a pre-tax saving account (called DPA for “Dotation Pour Aléas”). The MPCI contract is now a technical success, but its uptake is still limited. Many initiatives have been developed for improving the uptake rate (i.e. "contrat socle", mono and multi production coverage) and range of use (forage contract using satellite indices). The DPA has been “improved” several times, but is still too complex to be used. Its impact is still very limited.

A recent report of the CSO (2017)13 dedicated to risk management in agriculture concludes that a wide range of instruments are currently used in France but without a real strategy supported by the Ministry and without a real logic of intervention, which tends to be ex post. The involvement of France in the crop insurance system is certain, positive but still limited. The signal to farmers is mixed, as alternative public ex post policies are still maintained (tax exemptions and deferred social payments).

**Italy**

Recently, the subsidised crop insurance system has moved from a system made by three insurance types (single, pluri and multi-peril insurance) to a system that offers multiple coverages for different sets of adversities (the so-called "pacchetto A", "pacchetto B", and "pacchetto C"). The market is moving towards a more flexible system, in order to match the heterogeneous demand with a flexible supply. Note that MPCI (and several other types of insurance contracts) without subsidies are offered by insurance companies. These policies may offer coverage against specific adversities and thus are appealing to risk-averse farmers exposed to specific risks. Recently, insurance companies have been working on technical details (e.g. acquiring detailed weather information) in order to offer index-based insurance contracts.

**The Netherlands**

MPCI has evolved over time and further adjustments are likely. Since farmers were particularly interested to insure only a portion of the crops, this option became feasible in 2012 (initially insurers indicated that insurance at farm level was desired to prevent adverse selection). In addition, farmers were required to pay upfront the full amount of the premium. The subsidy is directly paid from 2014 onwards to the insurer instead of to the farmer concerned. The Netherlands Enterprise Agency (RVO) within the Ministry of Economic Affairs provides the MPCI premiums and executes the administrative tasks. It is involved in the provision of multiple subsidies and payments to farmers resulting from national and European regulation. The latter comprises the major part of its tasks. It is envisaged that since it is becoming clearer to farmers that disaster relief is being abandoned (besides what is specified in the disaster law), the outreach of subsidised MPCI will increase.

---

4 Conclusion: implications of the case study in terms of public policy

4.1 Main findings with respect to the specific question of the case study

The main objective of the case study is to analyse the transition from single-peril to MPCI, being either pure private-based or public-private under Article 37 of Regulation (EU) No.1305/2013. The heterogeneous approach of premium support or private-based solutions for the case Member States analysed is also observed EU wide. In general, a pure private-based MPCI with substantial outreach is difficult to establish even in mature single-peril crop insurance markets, as in case Member States, and this is in fact the case worldwide.

Germany
Policy makers in Germany (and the Netherlands) have the ambition to create conditions for liberalisation. Before Article 70 (Regulation no. 73/2009) became available allowing public subsidies from CAP (later becoming Article 37) Germany did not subsidise premiums (besides subsidies for pilots and MPCI in Saxony). Subsidising MPCI in Germany is politically controversial and not considered as a step forward. Although private-based MPCI has been introduced recently in Germany, uptake is lagging compared to France and Italy (and to a lesser extent the Netherlands).

France and Italy
Existing public-private insurance schemes were transformed in France and Italy to align with EU regulations for subsidising crop insurance instead of financing it from a national disaster fund as it did before. The French system of insurance is supporting MPCI, as subsidized at two levels of capital insured and two possibilities of crop aggregation and not the historic single peril contracts which are no more subsidized. In Italy there has been a transition from subsidising single peril crop insurance contracts to multiple peril crop insurance contracts as normal evolution of the system toward a more mature one: in the long-run MPCI contracts are likely to be more attractive risk-coping tools.

With respect to the impact of subsidised MPCI it was not able to reach a dominant share of arable land coverage in France. The opportunity of using ex post measures could be one of the reasons. The farmers’ preference for fixed payments to support farm income could be also another reason.

There are no specific studies that have analysed (yet) how subsidies have affected the demand for crop insurance in Italy. There is empirical evidence that risk-aversion of farmers is one of the determinants of adoption (Menapace et al. 2012). In addition, a recent study by Santeramo et al. (2016) has emphasised complementarities and substitution effects between crop insurance and other risk management strategies (e.g. irrigation and crop diversification).

The Netherlands
Within the liberal Dutch policy context, a temporarily premium subsidy was agreed upon between policy makers and the farming community. A recent impact study revealed that MPCI is still not commercially viable in the Netherlands and the subsidy scheme has
been prolonged. The transition in the Netherlands was more disruptive since premium subsidies as well as MPCI were introduced simultaneously.

In the Netherlands, demand analysis revealed that arable farmers, who insured mainly potatoes, onions or sugar beets, were on average 40% larger than uninsured arable farms. Adopting fruit producers were also larger (33%) than their non-insured peers. Farmers who regarded themselves more risk averse were not significantly more likely to participate, while risk perception concerning occurrence and impact of insured perils affected demand significantly. Since public-private based MPCI was introduced, disaster relief programmes were no longer initiated. Yet several disasters were reported, namely excessive rainfall in 2010, frost in 2012, excessive rainfall in 2015, and hail and excessive rainfall in 2016. The government was able to resist political pressure in all aforementioned serious and widespread crop losses. By referring to the more structural long-term public-private market solution disaster relief programmes for those uninsured were not issued. Analysis also revealed that MPCI mainly substitutes for hail insurance uptake. So far growers who did not insure hail in the past have been hardly reached.

4.2 Main implications with respect to public policy

Main findings on Article 37 potential development, as well as MPCI access and uptake, are deducted from the case analysis and encompass subsidiarity, guidelines Article 37, and state support.

Subsidiarity

Decisions on whether or not and how much MPCI is subsidised under Article 37 are at the competency of national policy makers. The subsidiarity of Member States provides room to manoeuvre on how to allocate CAP funds, and budget transfers between pillars are allowed. A key obstacle is that the majority of farmers prefer direct payments instead of transferring part of the budget to subsidise premiums. In Germany, direct supply of financial support is perceived as more attractive, offering more flexibility from a farmer’s point of view. This also holds for the other analysed Member States, but since allocated budget for insurance was relatively limited, direct payments were only declined marginally. For example, in France the leading farmers’ union FNSEA accepted in 2009 that some EU budget would be diverted to support the development of crop insurance but at a marginal level (range of €100 million). The perspective of supporting all French farms with MPCI would require at least ten times the current public expenditures and farmers’ unions are not ready to accept transfer from direct payments to do it.

Subsidising MPCI via Article 37 is a more targeted approach in contrast to the approach of only direct support providing farmers more autonomy. In the latter case, the key rationale is that farmers themselves should decide how to use direct payments in making risk management decisions in balancing risks and returns. However, subsidies in crop insurance markets are particularly devoted to alleviate problems of adverse selection and excessive transaction costs. Moving away from subsidies as direct support, to give farmers freedom to decide on whether or not to insure their production in the sense that the decision is not encouraged via premium subsidy, may result in a continuing failure of the crop insurance system with areas affected by adverse selection and excessive transaction costs. Without access to a mature MPCI market, the set of coping strategies is too limited, and opening a door for (retaining) ad-hoc disaster relief programmes if specific uninsurable perils occur.
Obstacles threshold guidelines Article 37
Eligible claims in subsidised insurance under Article 37 have to fulfil a strict set of conditions. It is vital that support may only be granted for losses exceeding 30% of the average annual production to comply with WTO green box arrangements. Key obstacle encountered is that this in all four case Member States the threshold regulation was found to be too restrictive by the farming community. This high threshold is introduced in line with the principle that it is meant to be a safety net triggered only in extraordinarily adverse years. To partially overcome this hurdle, in France and Italy farmers can decide to reduce deductibles but this option is not subsidised and rated at market value. These risks are within the market based layer with corresponding additional premium at market value (thus without subsidy). In the Netherlands, this option is not available for MPCI (only private based hail insurance is available with lower deductibles.).

Note that some other Member States provide crop insurance subsidy, for single peril insurance and MPCI under state aid, without using EU support under Article 37 (for example Spain). As such, the threshold levels are less stringent, since they comply with WTO amber box arrangements and not green box rules.

Other obstacles encountered implementing Article 37
The requirement of upfront premium payments was not a significant hurdle in France and the Netherlands. In France, farmers are contracting crop insurance at planting season and must pay 100% of the commercial insurance premium with respect to the timing of payment programmed by the insurer and they receive directly the public subsidies after control of production acreage. For limiting liquidity problems for the farmers, and therefore for commercial aim, insurers are deferring premium payments as much as possible.

Ex-ante premium subsidy payments are causing substantial problems in Italy. Delays in subsidy payments have created lack of liquidity in the CONDIFESAs that have anticipated the payments. This is especially true in the North, in that the well-functioning CONDIFESAs have anticipated large amounts of premiums, while relatively fewer problems have been registered in the South and in the Centre, where participation is much lower (and thus the anticipated premiums are much lower). As a result, delays in subsidy payments may have created an adverse selection mechanism.

The Dutch scheme has evolved over time, whereby initially farmers were required to pay upfront the full amount of the premium before sowing, while claimed subsidies were received after harvest season. The subsidy is directly paid from 2014 onwards to the insurer instead of to the farmer concerned to increase demand. Farmers have to pay the premium in part as the insurer claims the other part from the competent authority directly. However, the uncertain subsidy rate (because of fixed ceiling) created uncertainty, but since the ceiling has been increased from 2017 onwards this will not be an issue the coming years anymore.
Annex I References

Interviews Germany
Deutscher Raiffeisenverband (DRV)
Deutscher Bauernverband
Deutsche Landwirtschafts-Gesellschaft e.V. (DLG)
Zentralverband Gartenbau e.V.
Gesamtverband der Deutschen Versicherungswirtschaft e.V. (GDV)
Vereinigte Hagelversicherung VVaG
Versicherungskammer Bayern
Bundesanstalt für Landwirtschaft und Ernährung (BLE)
Bundesministerium für Ernährung und Landwirtschaft (BMEL)
Ministerium für Ländliche Räume und Verbraucherschutz – MLR, Baden-Württemberg

Interviews France
French Ministry of Agriculture
Fédération Nationale des Exploitants Agricoles (FNSEA)
Confédération Paysanne
Fédération Française des Sociétés d’Assurance (FFSA)
Crédit Agricole Assurances
Groupama Assurances

Interviews Italy
Italien Ministry of Agriculture
CREA-PB (former National Institutes of Agricultural Economics)
Consorzio di Difesa delle Produzioni Intensive della provinvia di Foggia
Confagricoltura / Confederazione Italiana Agricoltori (CIA)
Condifesa Mantova
Condifesa Benevento-Avellino
Condifesa Alessandria
Asnacodi
Codipra Trento
Coldiretti

Interviews the Netherlands
Dutch Ministry of Economic Affairs
Dutch organisation for Agriculture and Horticulture (LTO Nederland)
Agriver
Achmea Agro
BFAO Onderlinge Fruittelers Hagelverzekering

References


GDV (2016). Multi-peril Crop Insurance for Germany (Landwirtschaftliche Mehrgefahrenversicherung für Deutschland). Gesamtverband der Deutschen Versicherungswirtschaft e. V.


36 Study on risk management in EU Agriculture
HOW TO OBTAIN EU PUBLICATIONS

Free publications:

- one copy:
  via EU Bookshop (http://bookshop.europa.eu);

- more than one copy or posters/maps:
  from the European Union’s representations
  (http://ec.europa.eu/represent_en.htm);
  from the delegations in non-EU countries
  (http://eeas.europa.eu/delegations/index_en.htm);
  by contacting the Europe Direct service
  (http://europa.eu/europedirect/index_en.htm) or calling 00 800 6 7 8 9 10
  11 (freephone number from anywhere in the EU) (*).

(*) The information given is free, as are most calls (though some operators, phone boxes or
hotels may charge you).

Priced publications:
