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Stabilization of farm income
in the new risk management policy of the EU:
a preliminary assessment for Italy through FADN data

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Stabilization of farm income

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Abstract

Risk management and income stabilization have been gaining increasing attention in the EU's agricultural policy debate, also in connection to the recent proposal of a specific package of measures hypothesized in the ongoing CAP reform. The paper summarizes the current policy picture at EU and Italian levels, deepening country specific issues of construction of an income stabilization tool and providing a quantitative appreciation of the financial importance of a generalized measure of income stabilization for Italian farms. Estimates of farms' losses and compensations are differentiated by type of farming and dimension of farms. The results are discussed looking at the perspectives of the new policies under scrutiny.

Keywords: risk management, income stabilization, agricultural policy, FADN

JEL classification: Q18.

1. INTRODUCTION

The recent proposals of new regulations for the common agricultural policy are aimed, inter alia, to strengthen the intervention in support of risk and crisis management (RCM). The risk-package under Pillar II of the CAP offers a mix of possible measures aimed at different targets (risk management, strictly speaking, but also income stabilization) with different instruments (insurances and mutual funds), apparently leaving open the possibility of integrations that cannot over-compensate across the different instruments (European Commission, 2011).

The strengthening of policies for risk and crisis is fuelled also by the increased exposure to market risks determined by changes in EU internal policies, also further accentuated by the increasing openness to international competition and the increasing variability that recently characterizes input and output prices behavior. Beyond market risks, climate change adds to the traditional importance for the agricultural sector of the risk factors related to the biological nature of production processes (OECD, 2011; European Commission, 2010).

The mix of measures envisaged in the new regulation poses several problems, from budget issues, to the role of such a package in the new CAP, to many practical solutions needed for the implementation. Beyond considering the main general and country specific issues from an Italian view-point, this paper proposes a quantitative appreciation of the financial importance of a generalized measure of income stabilization for Italian farms, shaped consistently with the approach currently hypothesized by the EU Commission.

Estimates of farms' losses and public contributions to compensations are differentiated by type of farming and dimension of farms. The results are discussed looking at the perspectives of the new policies under scrutiny and of integration of the different tools that compose them.

2. RISK MANAGEMENT AND INCOME STABILIZATION IN THE CAP

In matter of crises and risks management, regulation at European level is currently defined under the broad discipline of State aid and particularly the 'Community guidelines for State Aid in the agriculture and forestry sector 2007 to 2013' (OJ C 319/2006), providing guidance to a variety of national solutions on aid for natural disasters, adverse weather conditions, animal and plant diseases, insurance premiums, and *de minimis* payments. EU support is provided through some rural development measures - restoring/preventing agricultural production from damages by natural disasters - and the provisions of art. 68 of the support system emerged from the Health Check (EC Reg. 73/2009). Solutions are envisaged also at CMO level, for veterinary crises, allowing exceptional market support measures, or for safety nets provisions in case of economic crises, and for the wine CMO (Reg EC 479/2008) and the fruit and vegetable CMO (EC Reg. 1234/2007).

Art. 68 provides for the possibility of allocating up to 10% of national ceilings to the provision of specific support in clearly defined cases, including *measure d* (insurances), which makes possible subsidizing measures to hedge the risk of economic losses caused by adverse weather occurrences and animal or plant diseases or pest infestations (art.70). Moreover, *measure e* (mutual funds) provides for the possibility of financing mutual funds able to compensate farmers for economic losses resulting from animal or plant diseases or the manifestation of a specific occurrence of pollution, contamination or degradation of the quality of the environment related to a specific event of limited geographical scope.

EC Regulation 479/2008 has reformed the CMO for wine by introducing under the support programs preventive tools, such as crop insurance and mutual funds to address the risk of income and crisis situations (art. 7). The EC Reg. 1234/2007, reforming the fruit and vegetable CMO, amended by EC Reg. 361/2008, introduced specific measures for the management of income risk and crisis prevention (support for crop insurance and for administrative costs of the establishment of mutual funds) in the framework of Operational Programs of Producer Organizations (art.103/iv).

The risk-package proposed in the new draft regulation on rural development relates to this picture, giving individual states the opportunity to develop the mix of instruments consistent with their insurance systems and related national laws, replacing the risk management provisions of art. 68 with 3 tools¹:

¹ Specific provisions currently in place in the CMOs for wine and fruit and vegetables would survive and add to the new package.

1. Contributions to insurance premiums for loss caused by bad weather, animal and plant diseases and parasitic infections;
2. Direct contributions to mutual funds to compensate farmers for losses caused by diseases of animals or plants or in the event of environmental accidents;
3. Contributions to mutual funds operating as income stabilization tools (IST) and consisting in financial contributions to mutual funds for the payment of financial compensation to farmers who face a drastic drop in income.

As far as income stabilizations is concerned, the single payment is providing already a significant action against instability of farm incomes (Tangermann, 2011; Cafiero et al., 2007). The shift from the previous price support to direct payments, however, has substantially changed the relationship between the main instrument of farm income support and the typical activities and risks on farm. If, on the one hand, direct payments are the most important support to agricultural incomes, and actually help reducing their variability, on the other hand they currently are, and intended to be in the future, as substantially independent from income distribution (therefore being an instrument of farm income support of limited effectiveness) and have no impact on the producer price, or correlation with the occurrence of market crisis (therefore not a real tool for managing market risks).

There is a growing room for intervention on market risk, then, to be filled by policies supporting the management of specific risks to which European agriculture is today exposed more significantly than in the past, or by interventions aimed at stabilizing incomes when they are significantly hit by adverse developments (fall of producer prices, hikes in the cost of key inputs, etc.).

The current wording of Art.40 of the new regulation for rural development, defines IST as a mutual fund that enables compensations to farmers whereas losses of income are greater than 30% of the average income from the last three years, with an amount of compensations not greater than 70% of the losses recorded, 65% of which to be borne by government intervention. In principle, insurance instruments may compensate for the losses related to specific insurable risks (eg. insurances on yields, or on adverse weather events), and make it necessary to curtail the compensation the fund would have to pay to the farmer since part of the compensation would be paid by the insurer. In this sense, the compensations to be paid by the mutual fund (as well as the 65% of it to be covered by public supports) as IST could be understood as an upper bound of the allocation of public resources to be devoted to crisis management, while the fund could have a role to optimize the mix of RCM tools as they maximize the coverage for participating farmers.

3. THE ITALIAN CASE

In Italy, the support system for risk management in agriculture is slowly strengthening around the crop insurance against adverse weather events, moving from insurance of single risks, to combined and yield insurance (INEA, 2011; Bielza et al., 2008). Since the '70s, support to RCM has been handled by a National Solidarity Fund

for natural disasters and exceptional events and a network of 'Consorti di difesa', providing services to farmers and the interface with the insurance system. However the picture is characterized by a relatively weak development of the system (only about 18% of production is insured), an high incidence of subsidies to the value of premiums paid to insurers (around 65%), the difficulty of expanding the types of risks insured, and a strongly uneven spatial incidence of insurance (70-80% of contracts are in the north of the country).

Among the measures funded by the EU, Italy activated *measure d* of art. 68, with a yearly budget of 70 Meuro in the last years, making up over 30% of the public contribution to the supported agricultural insurance market in Italy, while a clear national legislation allowing support to the constitution and operation of mutual funds is still to be developed.

The CMO for wine is providing an yearly average of more than 19 Meuro from 2009 till 2013 for the support of crop insurance. In the context of a strengthened support to RCM, envisaged in the draft new regulation on rural development, a rationale for keeping similar measures also in the wine CMO might be in the setting up of a more strict link to the operation of Producer Organizations (POs). POs could be in a good position to boost and perform mutual RCM functions, such as, creating mutual funds and widening risk-pooling through insurance networking with other funds and insurances, or managing financial derivatives to hedge price risk (EU Parliament, 2012).

Also for fruit and vegetables the coexistence of a CMO specific risk package with the new general provisions might suggest revising CMO mechanisms towards a strengthened role of POs. Moreover, as a recent survey suggests, also the tools provided by the CMO might need to be better targeted to the objective of RCM² and made more flexible in the implementation (dell'Aquila-Petriccione, 2012; EU Parliament, 2011).

The debate on the package proposed by the Commission is in progress and one may refer to some recent contributions to get an overall picture still populated by many uncertainties about the features the different tools will assume (D'Auria et al., 2011; Severini, 2011; INEA, 2011; Capitanio, 2010). It is useful reporting some issues, however, both general and country specific.

General issues relate to: a) the nature of RCM tools, which are often more suitable for first pillar interventions in order to avoid a stronger heterogeneity of treatment among farmers of different countries/regions, generated by both the voluntary nature of the intervention and the burden of the national co-financing of measures; b) the automatic decommitment for II Pillar measures is less suitable to the management and payment application of RCM measures, which trigger payments that are often uneven and unpredictable over time; c) the ex-post mechanism for the public funding of part of the

² Among the single tools currently available in the 2007 CMO for RCM (market withdrawals; green harvesting or non-harvesting; promotion and communication; training measures; harvest insurance; support for the administrative costs of setting up mutual funds) only some of them have been implemented by the National Strategy, while among the 74 Italian POs interviewed "promotion and communication" fared by far much better than any other measure: 72% of POs adopted it in 2010, followed by "market withdrawals" (31%) and "harvest insurance" (17%).

payments delivered by the mutual funds, which increases the likelihood of losses of EU support due to the automatic decommitment.

Country specific issues relate to the organization on a regional basis of rural development programming in Italy. This is in conflict with the nature of the measures envisaged in the new draft regulation and a waiver would probably be needed in order to make possible developing a national measure for RCM.

On the other hand, the definition of national models of intervention on the risks and stabilization of farm income is emphasized by a second pillar's approach and opens up to the issue of integration of the different tools. Although both logic and statutory provisions designed to avoid over-compensation seem to leave room for forms of joint use, there is still uncertainty about the final profile of integration of the package. Options for coexistence and complementarity of traditional insurance products with the development of mutual funds should not be ruled out when allowed by the regulation and capable to improve the overall performance of the Italian system of RCM.

Whatever the mix of instruments chosen (among those who will turn out to be "feasible" at the launch of the reformed CAP), the idea that the tools can all contribute to a common goal of stabilizing farm income - both in the case of insurance products targeted to specific causes of income losses (environmental, health) and in the case of an IST aimed directly at the mutual stabilization of farm incomes - would suggest to observe the financial needs for a scheme applied across the board of Italian agriculture.

4. SIZE OF A COMPENSATION SCHEME FOR THE "INCOME RISK"

The idea of evaluating the public endowment necessary for the global coverage of income drops at farm level is not new and has been implemented by Commission's services in recent years, under the hypothesis of schemes for direct public compensation of income losses to be compatible with WTO rules: measures to be implemented in case of income reductions of more than 30% of the average of the previous three years, by means of compensations not exceeding 70% the loss incurred (European Commission, 2009). In the Commission's results income reductions are investigated at FNVA (Farm Net Value Added) level and the amount of compensations, in 2006, would be about 11.6 billion euro for EU-25, with Italy being the major potential beneficiary (25.6%). The high cost of these interventions is probably part of the explanation of the decision not to implement such a comprehensive instrument at Community level, limiting the public role to support RCM tools operated by third parties (insurances and mutual funds) and to place the risk package in the second pillar of the new CAP. This is in addition to other critical issues, represented by the need for both common definitions of agricultural income in Europe and homogeneity of the data collection systems, and by the rigidity of the EU financial system, which is ill-suited to the flexibility required by the impossibility of predicting the yearly amount of compensations (D'Auria et al., 2011).

However, even when the pattern of intervention is oriented towards indirect forms of public support for risk management and income stabilization, a rough assessment of

the potential engagement of a suitably defined IST could provide guidance to outline the public budget necessary to ensure an acceptable farm income insurance through mutual funds and private insurances.

Of course, income changes and, therefore, the costs of implementing the scheme, depend very significantly on the indicator chosen to measure income behavior and the impact that political variables (other payments), market (prices input and output) and accounting (depreciation) may have on the indicator.

Table 1 – Farm income indicators

(+) <i>Gross Agriculture Output</i>	gross physical production * output prices at farm gate
(+) <i>First pillar payments</i>	Includes receipts for sales of services such as custom work, income rental of land, quotas, building, machinery, etc. Excludes rural development payments
(+) <i>Other payments</i>	
(+) <i>Farm holidays</i>	
(+) <i>Rent</i>	
(+) <i>Other</i>	
Farm Gross Production Value (GPV)	
.....	
(-) <i>Intermediate Consumption</i>	
(-) <i>Other</i>	services, crop and livestock transformation
Farm Value Added (VA)	
.....	
(-) <i>Rent</i>	
(-) <i>Amortization</i>	
(-) <i>Wages</i>	
Farm Net EBITDA	
Income of a farm based only on its core business, gross of interest (financial management), tax (fiscal management), and net of amortization of assets	
.....	
(+) <i>Financial management</i>	
(+) <i>Second pillar payments</i>	
(+) <i>Other revenues</i>	
Farm Net Income (NI)	

Indicators used for the simulations provided in this paper are defined in Table 1. Particularly, most of the results presented relate to: a) the Farm Value Added (VA) and b) the Farm Earnings Before Interest, Taxes, Depreciation and Amortization, made net of amortization (Net Ebitda). This option is linked to the features of VA, which measures the amount available for the remuneration of the fixed factors of production (work, land and capital) and it is simpler to monitor because is unaffected by differences in the nature (external or family) of those factors of production. On the other hand, the Farm Gross Production Value (GPV) is not an measure of income, although its main component can enjoy subsidized insurances, while the Farm Net Income (NI) is of more limited operational usefulness since it tends to show, at the same time, an higher variability compared to indicators such as VA and a low likelihood of finding effective and cost-efficient controls at farm level for that measure of income.

5. DATABASES AND METHODOLOGY

The information used for the analysis proposed here is derived from the database of the Farm Accounting Data Network (FADN)³. In Italy, the FADN sample selection is through a stratified random sampling without replacement that allows representing the different types of farming (ToF) and size (ESU) throughout the country. The stratification by ToF and ESU allows to measure yearly average losses and compensations by different types of farms, a fact potentially of some use for ex ante assessments of the endowment necessary for the operation of an IST with a given composition of farms enrolled in the measure.

The analysis gathered information from FADN sub-samples made of the only farms constantly present in each of the 4 years necessary to perform intertemporal comparisons of income at individual farm level (i.e. reductions of income of more than 30% of the average income of the previous three years)⁴. In particular, for those farms which showed an income drop of more than 30%, compensations were valued at 70% of the losses incurred in the year, while the government grant was valued at 65% of compensation hypothesized, based on the approach currently adopted by the EU Commission, which envisages a coverage to the operation of mutual funds that do not exceed such a level and relies also on farmers' savings. Results obtained from the FADN sub-sample for 2010 were extended by post-stratification, extrapolating values representative of the entire universe of Italian farms⁵.

6. RESULTS

In global terms, rather significant percentages of farms have experienced a deterioration of income indicators in 2007-10 (Figure 1). For all the indicators but VA, the share of farms facing income crisis grows to very significant levels from 2007 to 2009 and reduces in 2010. VA shows a relatively more stable pattern.

The share of farms with severe reductions of income turns out to be bigger the closer we get to net income indicators. NEbitda and NI hover between 30-40% all over the 4 years under observation, while for GPV and VA the shares are much lower and range between 8-20% and 18-22% respectively.

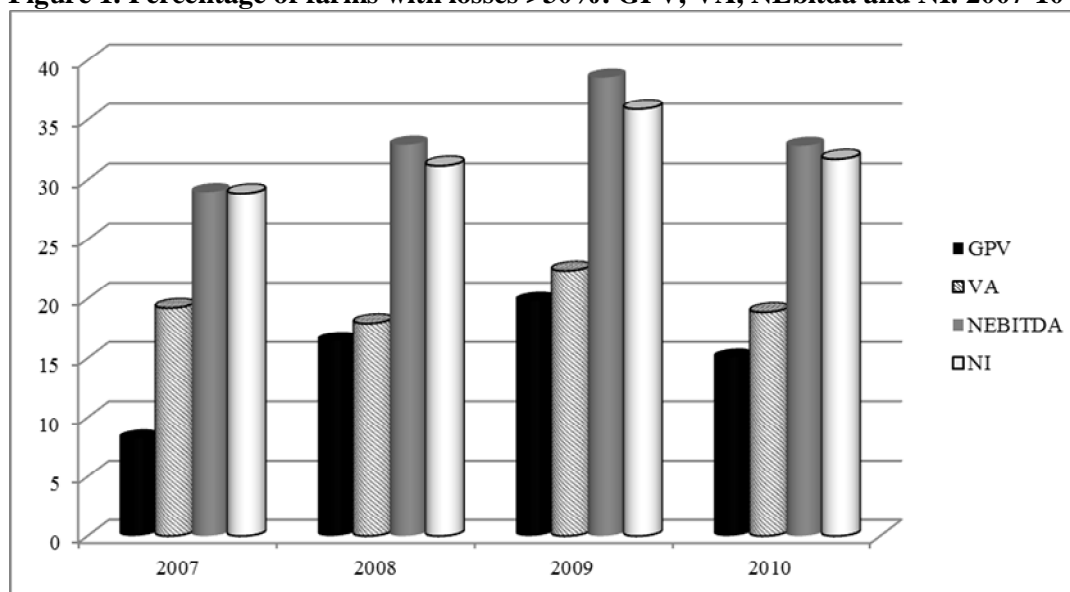
Table 2 shows the average amount of losses for farms of the FADN sample which incurred in more than 30% drop of VA and NEbitda. In terms of VA, average losses per farm tend to grow from 38,000 euro in 2007 to 52,400 euro in 2010, while NEbitda losses are highest in 2008 (42,700 euro) and reduces to 35,200 euro in 2010. The larger number of farms with declining NEbitda explains the lower values of average losses.

³ Although established to respond to objectives of technical assistance, FADN can pursue different analytical goals, such as monitoring the evolution of agricultural income, or supporting development, updating and evaluation of EU agricultural policies, thanks to the breadth of information gathered (about 2,000 elementary structural information of both accounting and non-accounting nature) per farm and accounting year (Abitabile, Scardera, 2008).

⁴ This means that the sub-samples used are approximately made of 8,000 farms for 2007, 6,500 for 2008, 4,800 for 2009, and 6,500 for 2010.

⁵ The methodology relies on the weighting coefficient (sampling weight) defining the relationship between each unit of the sample and the number of units of the population represented by the sampling unit.

Figure 1. Percentage of farms with losses >30%. GPV, VA, NEbitda and NI. 2007-10



Source: INEA on FADN data

The attempt of extrapolating, for 2010 only, the total number of farms that have experienced a decrease of income greater than 30%, as well as their total losses, brought about very high values, with almost 804.000 farms losing more than 16,8 billion euro of VA, while in terms of NEbitda more than 815,000 farms have lost more than 11.2 billion. Beyond the role played by the general economic slowdown witnessed by the country in the last years, also the large number of farms considered by the Farm Structure Survey (FSS) affects the estimation⁶.

Table 2 - Average losses of farms with losses > 30% and estimated total number of farms and losses for Italian agriculture. VA and NEbitda , 2007-2010

	Avg losses ('000 euro)				Farms and losses (mln euro)	
	2007	2008	2009	2010	2010 Farms	Tot. losses
VA	38,0	49,2	50,9	52,4	803.941	16.861,7
NEbitda	22,2	42,7	39,5	35,2	815.719	11.258,2

Source: INEA on FADN data

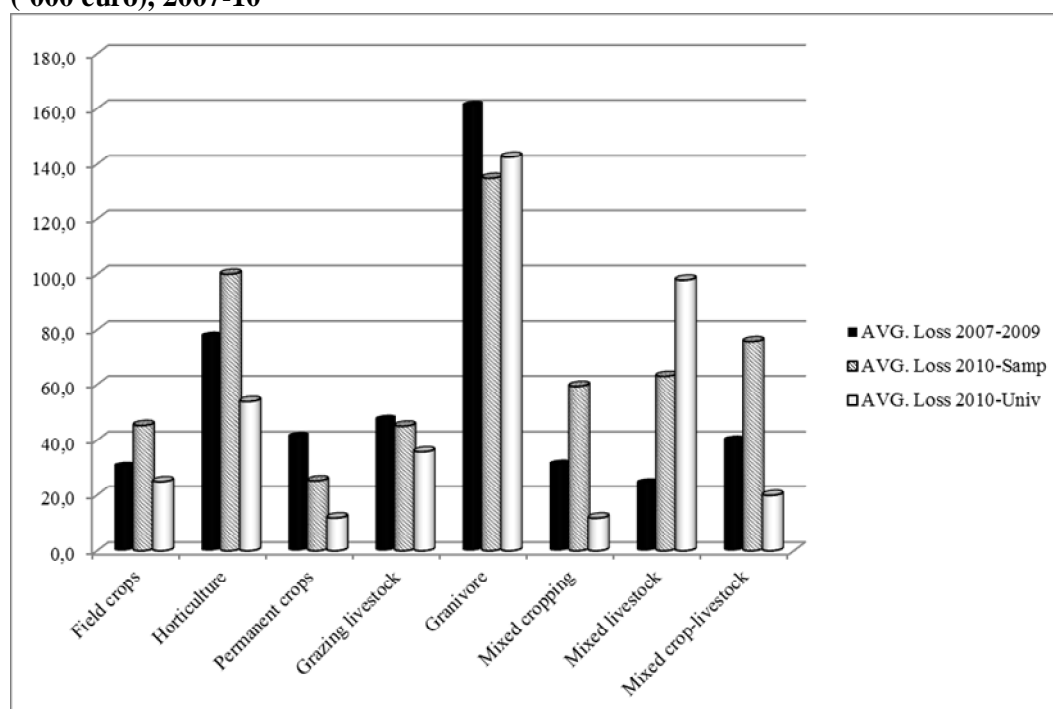
Tables A1 and A2 in the Annex show the percentage of farms hit by a decline of VA and NEbitda below 30% of the average of the previous three years, broken down by type of farming (ToF) and dimension (ESU), with related values of average losses for the

⁶ For 2007 data, about 8,000 holdings gathered in the sample represent more than 1.6 millions farms included in the FSS.

FADN sub-samples and total losses for the extrapolated universe of Italian farms in 2010. Drawing on table A1, Figure 2 and 3 summarize the findings for VA by type of farming.

Estimates suggest that granivorous farming (pig and poultry farms) shows highest average losses per farm, both in the FADN sub-samples and globally. This is often so, because of the impact of high variation of pig prices, on income variability (both positive and negative) and also because of the influence of economic size of a small number of large farms. However, the worsening trend of economic performance during the period under review involves growing average losses for most sectors.

Figure 2. Average losses of farms with losses of VA > 30% by Type of Farming ('000 euro), 2007-10

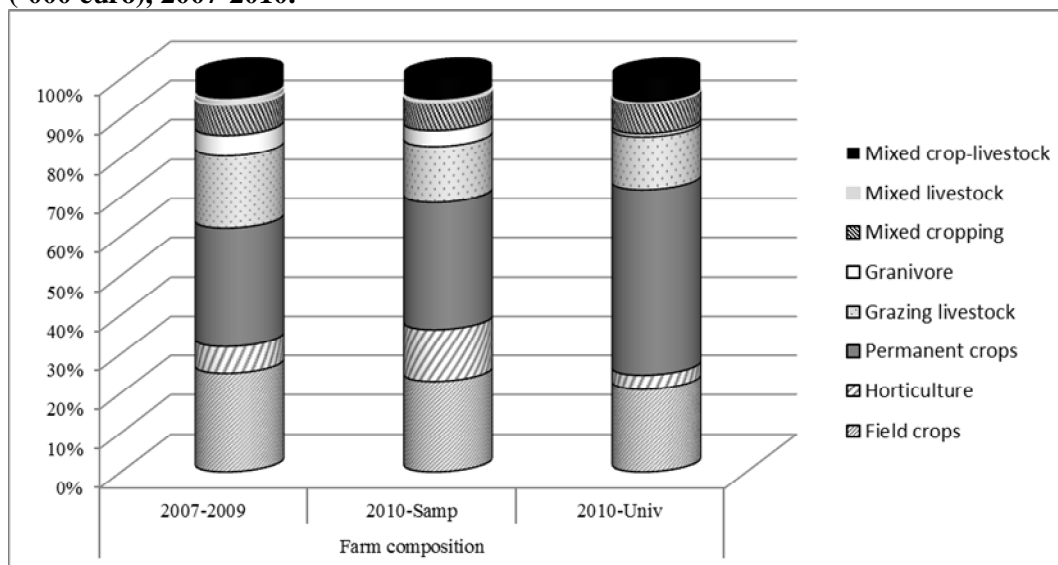


Source: INEA on FADN data

Looking at the composition of farms, permanent crops emerges as the sector contributing the most to the global picture of farms with a weak income performance. In particular, at FADN sub-samples level, the shares of permanent crops and horticulture farms tend to grow over the 2007-2010 time span. Moreover, the estimate for the universe of Italian farms in 2010 makes the role of permanent crops in the global picture even bigger, with about 47% of farms experiencing an income crisis in 2010 belonging to that sector. These evidences are also in line with recent investigations targeting the perspective of the fruit and vegetable sector in the wake of the ongoing CAP reform (dell'Aquila, Petriccione, 2012; EU Parliament, 2011).

The picture does not change much if we consider NEbitda as income measure. Netting out wages and amortments tends to reduce average losses and increase the number of farms with a bad income performance, although this does not hold for all sectors.

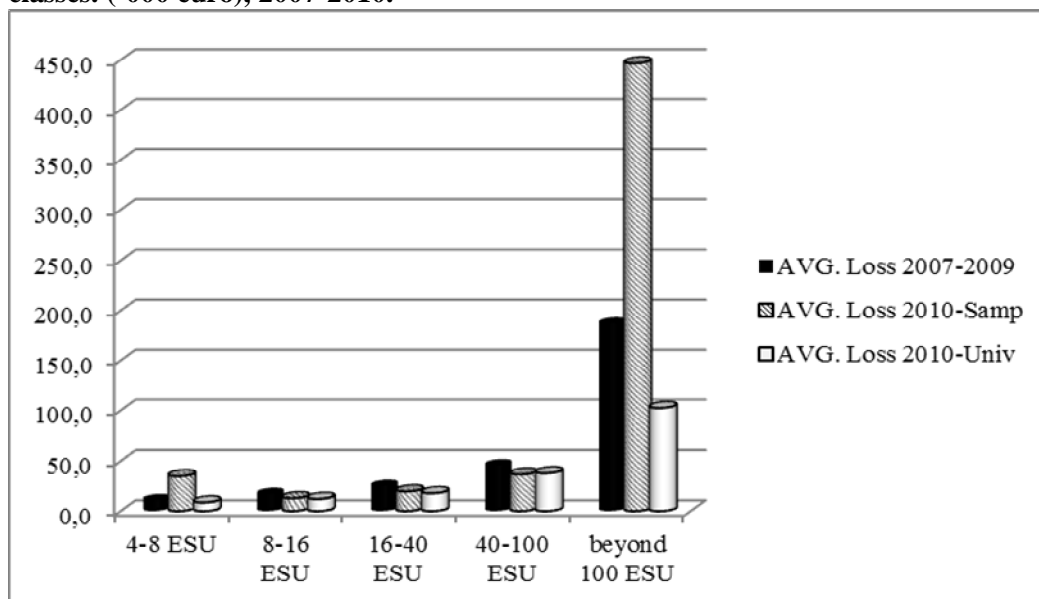
Figure 3 - Composition of farms with losses of VA > 30% by Type of Farming ('000 euro), 2007-2010.



Source: INEA on FADN data

Drawing on table A2, Figure 4 and 5 summarize the findings for VA by economic dimension of farms. In general, small farms are more exposed to large income variability measured as a percentage of income than big farms. While percentage variations are high when calculated on low income values, the absolute variations may be rather limited. In line with that, calculations in Table A2 show that the highest total amount of losses is realized by the largest ESU class (beyond 100 ESU).

Figure 4 – Average losses of farms with losses of VA > 30% by Economic Size classes. ('000 euro), 2007-2010.

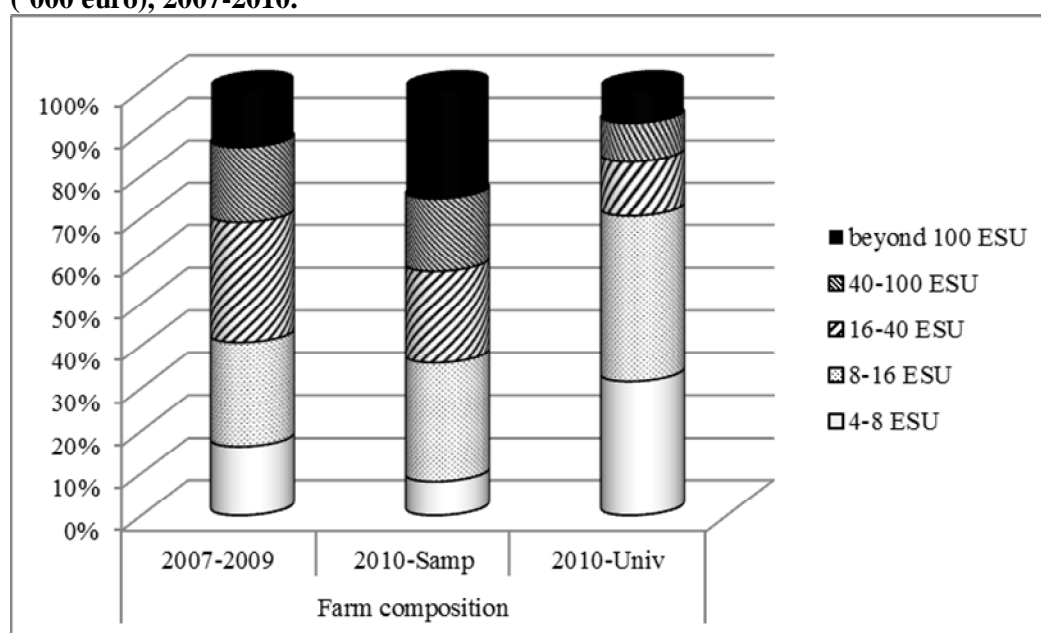


Source: INEA on FADN data

In Figure 4, average losses per farm go in 2007-2009 from 11,000 euro for the smallest ESU class to 187,000 euro for the largest one, while estimates referred to the universe of Italian farms range from 8,600 to 102,400 euro.

This last evidence should be read in the light one of the main technical problems in carrying out a brand new mutual fund working as an IST. The idea of imposing a burdensome paper-work to small farmers, and costly controls to public authorities to ascertain income drops at farm level, would probably crash against the lack of interest in the measure (from farmers' standpoint) and the public awareness of the inefficiency of such public expenditures meant to contribute to stabilize income of a large number of small farms.

Figure 5 - Composition of farms with losses of VA > 30% by Economic Size classes. ('000 euro), 2007-2010.



Source: INEA on FADN data

Further elements can be obtained investigating the composition of farms by classes of ESU (Figure 5). At FADN sub-samples level the composition is more even and the ESU class “beyond 100” is more relevant in terms of weight among farms with a weak income performance. Estimates for the universe of Italian farms in 2010 make much more room for small farms, with about 83% of the farms experiencing an income crisis in 2010 gathered in the three smallest classes.

Since the weight of small farms hovers between 60% to 80% of the global picture of farming crisis, public compensations and control would mainly deal with stabilizing income for such a fabric of farms. Drawing upon the previous estimates, Table 3 reports the average public component of compensations that should have been paid in the years under investigation, if an IST consistent with the current proposals of CAP reform would have been carried out.

Table 3 - Average public compensations for farms with losses of VA > 30%. '000 euro. 2007-2010

Type of Farming	2007	2008	2009	2010	2007	2008	2009	2010	Economic Size
<i>Field crops</i>	12,9	15,0	13,7	20,6	4,1	7,0	4,1	15,8	4-8 ESU
<i>Horticulture</i>	24,4	46,8	34,8	45,5	4,0	12,7	6,8	5,8	8-16 ESU
<i>Permanent crops</i>	15,4	23,0	18,2	11,5	9,0	14,1	11,4	8,9	16-40 ESU
<i>Grazing livestock</i>	15,7	18,3	30,8	20,5	17,7	24,4	20,6	16,7	40-100 ESU
<i>Granivore</i>	69,8	38,8	111,4	61,4	76,8	70,1	108,4	203,2	beyond 100 ESU
<i>Mixed cropping</i>	11,8	18,3	12,6	27,0					
<i>Mixed livestock</i>	6,5	10,5	16,4	28,7					
<i>Mixed crop-livestock</i>	12,1	24,4	18,2	34,5					

Source: INEA on FADN data

Looking at average compensations by economic size classes, the picture suggests that from 60% to 80% of farms eligible for IST interventions would need public compensations ranging from 4,000 to 15,000 euro, a result that could be further refined by adding other dimensions, such as ToF and geographic regions, in order to better circumscribe a large share of farms potentially involved in the foreseen policy of income stabilization which would require rather low compensations.

This, on the one hand, confirms the need of finding solutions to avoid ascertaining income drops of individual small farms and replacing farm approaches with sector or area approaches. On the other hand, further refinements of the above results could be of help, along with sound hypotheses about the profile of farms to be involved in the IST measure, in defining the budget necessary for the start-up of the new RCM tool.

7. CONCLUSIONS

The increasing engagement of the CAP in the management of risks and crisis in agriculture raises several theoretical, legal and financial problems, including the issue of assessing costs of the different tools envisaged in the new risk package. Focusing the possible launch of a mutual fund with the purpose of income stabilization, the results presented in this paper suggest that the financial burden of a generalized application of the current scheme to Italian agriculture would need to rely on a rather significant share of the whole CAP budget.

Nevertheless, since clearly not all Italian farmers are prepared to establish or join in mutual funds – providing the mutual agreement with part of their savings and certified information on their income – the issue becomes how to set the scene for an experimental launch of such a new income stabilization policy. Average per farm losses and compensations, estimated through FADN data and differentiated by type of farming and size, jointly with estimates of the features of the farms to be enrolled in the program, could be of help when assessing the potential cost of the new measure.

The activation of a mutual fund working as IST would start a gradual process, whose financial viability depends on the progression of adhesions, but also on the ability of the fund to interact with the insurance market reinsuring part of the specific risks at more convenient premiums than those currently existing on the market. The reduction of the rent associated with the current level of insurance subsidies would free up resources that could contribute to the sustainability of an integrated scheme of RCM; ultimately, the success itself of such a scheme could contribute to its sustainability by making such a policy capable of attracting further resources from both private operators and other areas of the CAP budget.

One of the major problems to be dealt with from the outset is the need of an effective monitoring of farm income to detect transitional phases of severe drops of it. Technical and legal solutions in this field are of paramount importance in defining nature, performance and attractiveness of the IST. This is particularly relevant in the Italian context, where the application to the agricultural sector of a simplified tax code implies a limited availability (in both quantitative and qualitative terms) of reliable data on farm profitability. Only a small share of larger farms is obliged by the law to provide detailed and certified financial statements.

However, the results presented suggest that, for the vast majority of farms, it is also true that compensations, when applicable, would be around few thousand euro, which would make unrealistic a heavy burden of paperwork and controls. Finding solutions to avoid ascertaining income drops of individual small farms, or greatly simplifying such an assessment, is a necessity. Indicators of income performance could either help replacing farm level approaches with a mix of dimensional and/or sector and/or area approaches, or by providing benchmarks against which the monitoring of individual farm income could turn out to be simplified.

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Table A1 - Farms with losses of VA and NEbitda > 30%. Number, average loss ('000 euro) and % weight by type of farming. 2007-2010

Type of Farming	2007			2008			2009			2010			Universe - 2010		
	Num.	%	Avg. losses	Num.	%	Avg. losses	Num.	%	Avg. losses	Num.	%	Avg. losses	Num.	Tot. losses*	Avg. losses
VA															
Field crops	350	19	28.3	328	19	33.0	265	21	30.1	281	18	45.3	168,234	4194.5	24.9
Horticulture	72	13	53.7	83	15	102.9	103	22	76.4	162	25	100.1	28,828	1551.2	53.8
Permanent crops	432	17	33.8	319	16	50.5	384	26	39.9	397	20	25.2	380,419	4520.8	11.9
Grazing livestock	364	23	34.4	197	18	40.2	136	18	67.6	175	16	45.1	107,870	3854.3	35.7
Granivore	73	33	153.5	82	49	85.3	38	32	244.8	49	26	134.9	6,947	990.8	142.6
Mixed cropping	115	17	25.9	91	15	40.1	81	20	27.7	86	19	59.4	61,448	727.6	11.8
Mixed livestock	33	24	14.3	11	12	23.0	10	19	36.1	7	23	63.0	320	31.4	98.0
Mixed crop-livest.	82	18	26.6	70	20	53.7	49	20	40.0	68	15	75.8	49,875	991.2	19.9
Tot.	1,521	19	38.0	1,181	18	49.2	1,066	22	50.9	1,225	19	52.4	803,941	16861.7	21.0
NEbitda															
Field crops	490	27	20.3	629	36	28.2	535	43	23.0	533	34	29.4	168,639	2134.3	12.7
Horticulture	139	26	34.8	126	23	74.4	122	27	69.0	194	30	75.3	28,950	1089.0	37.6
Permanent crops	784	31	6.0	549	27	36.8	536	36	31.0	669	33	16.9	380,481	2968.7	7.8
Grazing livestock	424	27	33.7	449	41	49.0	330	45	53.6	369	33	36.7	108,157	2947.1	27.2
Granivore	82	37	138.8	72	43	181.3	44	38	238.8	69	37	104.0	7,818	840.1	107.5
Mixed cropping	184	27	16.8	181	31	21.1	160	39	22.7	154	34	38.0	64,033	547.6	8.6
Mixed livestock	49	36	2.0	26	28	19.0	19	35	30.3	13	43	51.3	1,023	31.4	30.7
Mixed crop-livest.	115	26	16.7	137	38	43.7	92	37	30.4	131	29	47.8	56,620	700.1	12.4
Tot.	2,267	29	22.2	2,169	33	42.7	1,838	39	39.5	2,132	33	35.2	815,719	11258.2	13.8

* mln euro

Source: INEA on FADN data

Table A2 - Farms with losses of VA and NEbitda > 30%. Number, average loss ('000 euro) and % weight by by economic size classes. 2007-2010

Economic Size (ESU)	2007			2008			2009			2010			Universe - 2010		
	Num.	%	Avg. losses	Num.	%	Avg. losses	Num.	%	Avg. losses	Num.	%	Avg. losses	Num.	Tot. losses*	Avg. losses
VA															
4-8 ESU	254	24	8.9	204	24	15.3	158	27	9.1	98	10	34.8	253,755	2174.2	8.6
8-16 ESU	397	21	8.8	272	19	28.0	248	23	15.0	342	35	12.8	312,449	3767.5	12.1
16-40 ESU	431	18	19.8	320	17	30.9	312	23	25.1	264	27	19.6	103,795	1842.6	17.8
40-100 ESU	236	16	38.9	218	15	53.6	216	20	45.3	209	21	36.6	71,789	2710.2	37.8
beyond 100 ESU	203	19	168.8	167	17	154.1	132	20	238.3	312	32	446.6	62,154	6367.3	102.4
Tot.	1,521	19	38.0	1,181	18	49.2	1,066	22	50.9	1,225	19	52.4	803,941	16861.7	21.0
NEbitda															
4-8 ESU	346	33	5.2	314	36	13.0	241	42	7.1	134	14	22.7	257,006	1356.3	5.3
8-16 ESU	602	32	5.3	487	34	20.8	383	36	10.8	581	60	8.4	313,589	2367.1	7.5
16-40 ESU	636	26	12.7	606	33	22.7	519	38	25.5	446	46	12.6	108,699	1199.4	11.0
40-100 ESU	390	26	26.2	442	30	41.4	345	32	42.2	398	41	24.5	72,475	1687.5	23.3
beyond 100 ESU	293	27	138.2	320	32	144.8	224	34	192.3	573	59	325.3	63,950	4648.0	72.7
Tot.	2,267	29	22.2	2,169	33	42.7	1,838	39	39.5	2,132	33	35.2	815,719	11258.2	13.8

* mln euro

Source: INEA on FADN data