



Paper prepared for the 122nd EAAE Seminar
**"EVIDENCE-BASED AGRICULTURAL AND RURAL POLICY MAKING:
METHODOLOGICAL AND EMPIRICAL CHALLENGES OF POLICY
EVALUATION"**

Ancona, February 17-18, 2011



**“FADN - FER system description and its exploitability in
Agricultural Policies impact evaluation: the system can accept
further development specification in order to assist Policies
design and evaluation?”**

Esposito L.¹, Macrì A.¹ and Tommasi I.¹

¹ Italian National Institute of Statistics, Agricultural Statistics Service, Rome, Italy

laura.esposito@istat.it

FADN - FER system description and its exploitability in Agricultural Policies impact evaluation: the system can accept further development specification in order to assist Policies design and evaluation?

Esposito L., Macrì A. and Tommasi I.

Abstract

In this paper we examined subsidies received from actions set in motion by the two Pillars of EU Structural Policies. Data come from FADN-FER system that collects a large number of variables regarding results and economical behaviour of farmers active in the rural areas, including business and public entrepreneurs. Both FADN register and FER questionnaire collect data on CAP and RD contributes received to perform activities proposed by CAP/RD Pillars and measures; then FADN -FER databases can be used for Policies evaluation exercises as well as to improve Policies' design and targets. The available vectors of data have been analyzed through an approach that aims to represent the principal financial records and figures of the EU structural policies in two cycles: the first period for the cycle 2000-2006 and the second period for the first two years of the cycle 2007-2013.

Keywords: Policies Evaluation, subsidies, type of farming

JEL classification: Q18, R11.

1. INTRODUCTION

In 1998 Istat started with the FER survey on an experimental basis to satisfy the growing demand for micro-economic information on agriculture. Designed initially as a sub-sample of the FSS (Farm Structure Survey), since 2002 the FER survey has implemented a process of gradual integration with FADN survey, performed by the National Institute of Agricultural Economics, INEA.

The results of the FADN FER are published annually in the Istat series "Statistics in Focus" including statistical data on economic activity of farms like production, value added, costs, subsidies and employment (quantity of work). The survey, in its current configuration, is presented with theoretical and operational schemes similar to those used for business surveys in industry and services sectors. The coordination of various activities relating to the conduction of FADN FER survey is scheduled for the period 2007-2009 in a Memorandum of Understanding between the institutions involved in the investigation and it is entrusted to a Technical Committee which addresses the following targets:

- (1) The reduction of the statistical pressure on respondents and the containment of costs,
- (2) to transform the FADN existing accounting recognition in a statistical survey with positive result in terms of quality. From 2002 the FADN accounting tool was addressed and dedicated to a random sample of units.

(3) to bring the survey's response rate over 80%.

(4) improve the coordination between bodies involved that are the Ministry of Agriculture, the National Institute of Agricultural Economics and the Regions and Autonomous Provinces. Particularly relevant are the economic participation of the Regions (which finance 50% of the survey) and the involvement of the National Institute of Agricultural Economics that manages the entire process of data collection.

(5) to boost the harmonization and development of the survey system taking into account requirements and needs from Sistan Bodies, Private sector Parties and University and research Institution. In fact the system survey produces very detailed microeconomic information which are used by the National Accounts too.

While the Ministry of Agriculture uses the survey's results to carry out the impact assessment of national and regional agricultural policies; the universities show an increasing interest in parameters as: the agricultural and non agricultural income of agricultural households, the location of farms in strictly rural areas or in mixed areas, the income generated by activities related to agriculture (farm, landscape maintenance, etc. denoting the ability of farmers to diversify their activities).

Associations and other research bodies demonstrate growing appreciation to the potential application (analysis) of FADN-FER data as shown by active participation to scientific initiatives and by reports presented to conference organized by scientific Communities as SIDEA (Italian Society of Agricultural Economics), IAAE (International Association of Agricultural Economists) and workshops organized by the European Institutes of Agricultural Economics.

(6) improve the consistency of data, in terms of concepts and definitions, with other agricultural surveys, particularly with regard to variable as: the collection unit, the reference universe, the type of tenure, the legal form, the agricultural used area, the amount of labour employed in terms of working days. Also consistency with terms and definitions of business and local units is pursued as well as coherence with NACE classification of economic activities.

The most important innovations recently introduced move from a review of the questionnaire targeted to collect data on subsidies of both structural Policies Pillars (CAP and RD).

2. THE FADN-FER SURVEYS' SYSTEM

The FADN-FER survey system yearly feeds a real "pipeline of data" on results and behaviours of agricultural and some "green" activities performed by a certain variety of Parties and stakeholders in rural areas, with a special focus on subsidies received from actions set in motion by the two Pillars of EU Structural Policies.

Only the FADN part of the system collect data on more than 550 variables regarding results and economical behaviour on a wide variety of farmers active in the rural areas, including business and public entrepreneurs. The FER side of the system collect data on about 330 variables. The vectors of data of the two components of the system have of course common elements such as general information on farms and farmers and the typical quantities reported in

balance sheet (yearly accounting), but the Fadn vector of data is more detailed about costs and revenues structure.

Undoubtedly the strength of the Fadn component of the system is that it can offer a wide database for micro-economics analysis but unfortunately does not cover, equally, all parts of the structure of the farm population. In fact the Fadn vector of data suppose a quite complex accountancy system to be accepted by the sampled farm: for this reason Fadn vector of data does not refer to small farms (under 4 Esu¹) as well as to very big farms and to some others that declared to cannot integrate in their management systems such a onerous accountancy system. The sampling strategy takes account of this aspect.

The survey domain is defined at system level, that means for both component simultaneously, and refers to the EU farm universe as defined in the Council Regulation EC n.2223/96². The current target population accounts for more than 1,6 million of units of which more than half are classified under 4 ESU. But while Fadn component collect data exclusively from professional and market oriented business units sized more than 4 ESU, the Fer component contacts all units under 4 ESU and all other sampled farms not covered by Fadn collecting tools for the reason above mentioned. Also, for the information needs of National Accounts and of all statistical system, all Fadn vector of data is reprocessed under Fer terms and specification in order to provide a complete set of information to estimate a full set of the economic aggregates of the Italian agricultural sector.

Holders of the FADN FER system are ISTAT responsible for methodological aspects (sample design, control and correction of data, sample weights) and INEA responsible for all data collection and FADN data. Both collecting tools (Fadn and Fer) reports on the subsidies activate by the two Pillars of EU Structural Policies (CAP and RD) but with different details.

Sampling strategy of Fadn-Fer survey system is based on the stratification of the farm population, basically on three parameters : Region, type of farming, size of standard gross margin recently (Council Regulation (EC) 1242/2008)³ substituted by size of standard output.

The type of farming of a holding is determined by the relative contribution of the Standard Gross Margin (or currently the Standard Output) of the principal portfolio activities of each holding to the total Standard Gross Margin (Standard Output) of the same business farm. The new classification proposed by the regulation has three levels of types of farming:

- 9 general types, including a type for non-classifiable holdings
- 21 principal types
- 62 particular types.

¹ Economic size unit is used at the EU level to classify farms by economic dimension (1 ESU=1.200 euro)

² Farms of more than 1 hectare and or those showing marketed output of at least 2.066 euro

³ Council Regulation (EC) 1242/2008 of December 2008 established the new Community typology for agricultural holdings that applies from FADN 2010, FSS 2010 and Agricultural Census 2010.

Here we report the nine groups or types of farming : Arable land, Horticulture, Permanent crops, Herbivores, Granivores, Polyculture, Mixed livestock, Mixed Crops-Livestock, Unclassified.

Data available and taken into consideration in this exercise refer up to year 2008, but even if were already available data for year 2009 and 2010 we could assume the population distribution with respect of type of farming substantially stable for the purposes of this article. In fact tests on the impact of the new EU classification of agricultural holdings (ex Council Regulation 1242/2008) have demonstrate that the transition to the new classification (eminently to the Standard Output criteria) can determine only marginally, and in some cases, some differences in the farms' population distribution with respect to stratification parameters as type of farming (Cardillo, Esposito, 2010). Therefore we can assume population distribution at the national level substantially stable for the purpose of this article, even for the data to come and at the condition that no further groups of types of farming would be considered.

In this sense elaboration of Fer's 2002 and 2006 vector data shows that types of farming as Horticulture, Granivores, Mixed livestock represent groups not significant with respect to subsidies allocation. In 2002 the 3 types together capitalized only the 3,4% of the total estimated population: this fraction collected not more than 3,8% of total contributes distributed to the Italian farms according to the units responses. In 2006 Fer estimates report a similar situation with respect to the same groups: 62,4 thousands of farms -as 3,8% of the total estimated farm population- received not more than 4,7% of the total amount of structural contributes distributed to the Italian farms. In the years 2003, 2004, 2005 the amount of subsidies capitalized by the farms sampled under these three types of farming were even less than 3%.

As we can expect, types of farming more significant with respect to subsidies allocation are: Arable land, Permanent crops, Herbivores, Mixed Crops and Crops-Livestock. In 2006 these types represented 85,2% of the estimated population which captured 95,3% of the provided EU structural subsidies.

3. COHERENCE BETWEEN SURVEY SYSTEM'S REFERENCE POPULATION, STRATIFICATION AND POLICIES TARGETS.

Then the question is, are all the types of farming groups equally relevant for the need of the structural policies design and impact evaluation ? Or a different harmonization of groups of types of farming could make the results of Fagn-Fer and Fss survey more useful for policies design and impact evaluation (ex-ante and ex-post) exercises?

Do we need types of farming classification more harmonised with axes and measures (or type of action) of Structural Policies, eminently Rural development Pillar ? Or again axes and measures definition find adequate matching with the current general groups of types of farming or activity ? The answer would be basically or mostly not as we explained and reported.

Also, although the EU regulation make available a classification of 9 general groups and up to 62 particular types of farming (considering the third level/order of detail), an important aspect to be considered is the technical possibility to run estimates within the selected domain of

type of farming: but this chance clearly collapse for statistical constrains (significance), when we focus at a detailed level of the farming classification.

Undoubtedly the introduction of the Standard Outputs as criterion to determine the economic size of the holding and then the type of farming represents an important innovation compared to the previous regulations; but the Regulation (EC) 1242/2008 introduces another advance relevant for our purposes: the concept of Other Gainful Activities (OGA) directly associated to the holding. This concept take shape of classes (III) to sort farms accordingly to the increasing percentage value that those activities have in the holding revenues.

This novelty, we believe, can improve surely the chance to use Fadn-Fer vector of data for impact evaluation and policies design exercises; nonetheless one aspect remains still unfocused: the concept of OGA could result too wide. In fact Other Gainful Activities run from agri-tourism to aquaculture, landscape maintenance and many others activities directly related to the holding and that can be even differentiated in EU countries. Then we believe and suggest that harmonizing types of farming groups and including at least 2 or 3 groups related to the major other gainful activities can enlarge the use of Fadn-Fer vector of data in the highlighted applications and uses, because in this way the probability to extract supported farms from the sample increases, as the coherence between stratification and definition of axes and measures (es. of RD Pillar) increases too. Also, reasonably, the reference universe of the survey system should be widened in order to really ensure that all the units operating in other gainful activities are adequately considered.

The Italian Statistical Action Plan 2011-2013, actually pending of approval, includes a project targeting to assess conditions and constrains to extend the collection of data to forestry units under Fer specification. Actually even the Inea Institute, responsible for the Fadn part of the system is studying, through pilot survey in two Regions, the opportunity to extend Fadn accountability system to forestry units. Clearly this action moves in the direction of an enlargement of the reference universe of the system but, likely, the project should assess whether the inclusion of forestry units could actually lead to represent, completely, the groups of those units that in the rural areas are responsible for the OGA activities supported by EU structural Policies (mainly RD Pillars), but not yet really monitored through the current farms' universe. The appropriate use of administrative sources of data could really help in detecting all units operating in rural areas and which benefit of structural subsidies for Rural development or similar.

4. AN OVERVIEW ON SUBSIDIES RECEIVED BY ITALIAN FARMS POPULATION THROUGH DATA AVAILABLE FROM FADN-FER SOURCES

The first reasonable think we notice by reading the data is that the subsidies increase as Policy cycle go forward. In fact farms have to learn the new administrative rules at the beginning of the cycle of programming; furthermore some Region show some delay in the publication of notice (es. Rural development) intended to delivery of aids: Administration need time to fix the rules and to complete the screening of the farm requiring the aids.

Ancona - 122nd EAAE Seminar
"Evidence-Based Agricultural and Rural Policy Making"

Production per hectare, calculated at basic price, shows continuous increment over the period considered with the exception of 2006 which was the peak year for subsidies (per hectare and total) as well as – of course (!) – it's the end of the Policy cycle (2000-2006).

Production per hectare does not seem linked to subsidies trend⁴, in fact the production/subsidies ratio per hectare results equal to 9 or 10 times and peaks at the end of period when moreover the sector shows to have abandoned about 15% of the agricultural area in seven years .

Agricultural indicators and subsidies per principal items. Period 2002-2008							
	2002	2003	2004	2005	2006	2007	2008*
Farm Population	1,844,913	1,877,522	1,837,941	1,629,135	1,647,584	1,624,395	1,630,789
UAA (Ha)	13,303,974	13,017,310	12,097,032	11,458,327	12,048,781	11,376,699	11,342,705
Total CAP (coupled)	2,620,783,372	2,695,796,384	2,501,741,834	553,421,946	688,885,782	421,245,407	519,710,521
Set aside	16,184,514	12,896,719	7,170,666	5,615,204	1,615,091	5,067,629	-
Calamity	63,866,799	19,936,085	6,147,727	8,430,482	8,383,187	6,756,338	2,910,631
Subsidies to production and investment	591,452,878	1,141,295,660	1,201,946,055	789,771,714	570,746,522	349,597,422	365,134,945
Organic	144,680,489	87,808,359	57,942,210	127,728,122	138,667,436	111,451,754	11,398,010
Other subsidies	325,798,691	233,818,497	555,101,795	2,984,295,201	3,306,935,731	2,922,134,200	74,424,314
CAP - Farm Single Payment	-	-	-	-	-	-	2952117802
Total subsidies	3,762,766,743	4,191,551,704	4,330,050,287	4,469,262,669	4,715,233,749	3,821,320,379	3,925,696,223
Total subsidies per Ha	283	322	358	390	391	336	346
Production per Ha (basic prices)	2,426	2,841	3,288	3,315	3,086	3,518	3,612
Production subsidies ratio per Ha	9	9	9	8	8	10	10

Elaboration on Istat data
 Note: * = provisional data

As we will see in the next paragraph big farms are those which reach to shows – at the end of Policy the cycle - figures of total subsidies per hectare even doubled with respect of those shown by middle farms or even tripled compared to those shown by little size farms (es. those performing less than 4 Esu). Only big farm with more than 100 Esu reach to capitalize up to 700 Eur of total subsidies per hectare at the end of the Policy cycle (2006). Little and middle farms do not show capacity to “learn” along the cycle : the total amount of subsidies per hectare received by those farms do not peaks at the end of the Policy cycle but result basically constant along the period.

Actually the peak of subsidies at the end of Policy cycle overlaps the impact of the introduction of the farm single payment (2005). Unfortunately Fer questionnaire – as in the previous arrangement⁵ - did not succeed in capture real dimension of this new Policy measure : in fact analysis of data, clearly, reveal distortion in collecting single payment data which, instead, result to be collected indistinctly under the “other subsidies” mode until 2007 survey edition.

Anyway comparison with administrative sources shows the farm single payment stabilized at aggregate level and substantially independent of the structural Policy's cycle,

⁴ Take note that production at basic price includes only subsidies strictly directed to productions that means only a little fraction of the total subsidies received from the Italian farms.

⁵ Istat maintained the same questionnaire till 2007 and introduced substantial innovations about collection of data on subsidies in 2008 Fer questionnaire.

which basically take place along with the implementation of the second Pillar (RD). This means that the farm single payment should be not the real explanatory or descriptive variable of the Policy cycle.

5. USING FADN-FER VECTOR OF DATA FOR SOME ANALYSIS OVER THE PERIODS 2002-2006 AND 2007-2008.

The aim is to analyse the data results available from the FADN-Fer survey system over the entire reference universe, taking in to account comparability constraints due to innovation introduced during the last decade in the FADN Fer system.

We consider the two period 2002-2006 and 2007-2008. The choice depends on both the duration of Policies' cycles and availability of data. The 2009 vector of data is not yet validated, while 2000 and 2001 vectors of data have not been taken into consideration, because these sets of data would be not comparable with others due to the difference and specifications adopted since 2002, especially those relating to reference universe and sample strategy (random sample).

5.1. Analysis over the period 2002-2006

The EU structural Policy cycle 2000-2006 represents the first cycle implementing the so-called second Pillar of structural Policies for the primary sector. It is an important Policy cycle because put in action for the first time a complex of real economic measures to address and boost development in the rural areas. Available data from Sistan can show how the Italian agricultural system reacted to this complex of Policies measures, and which typology of farms better respond to some of the measures.

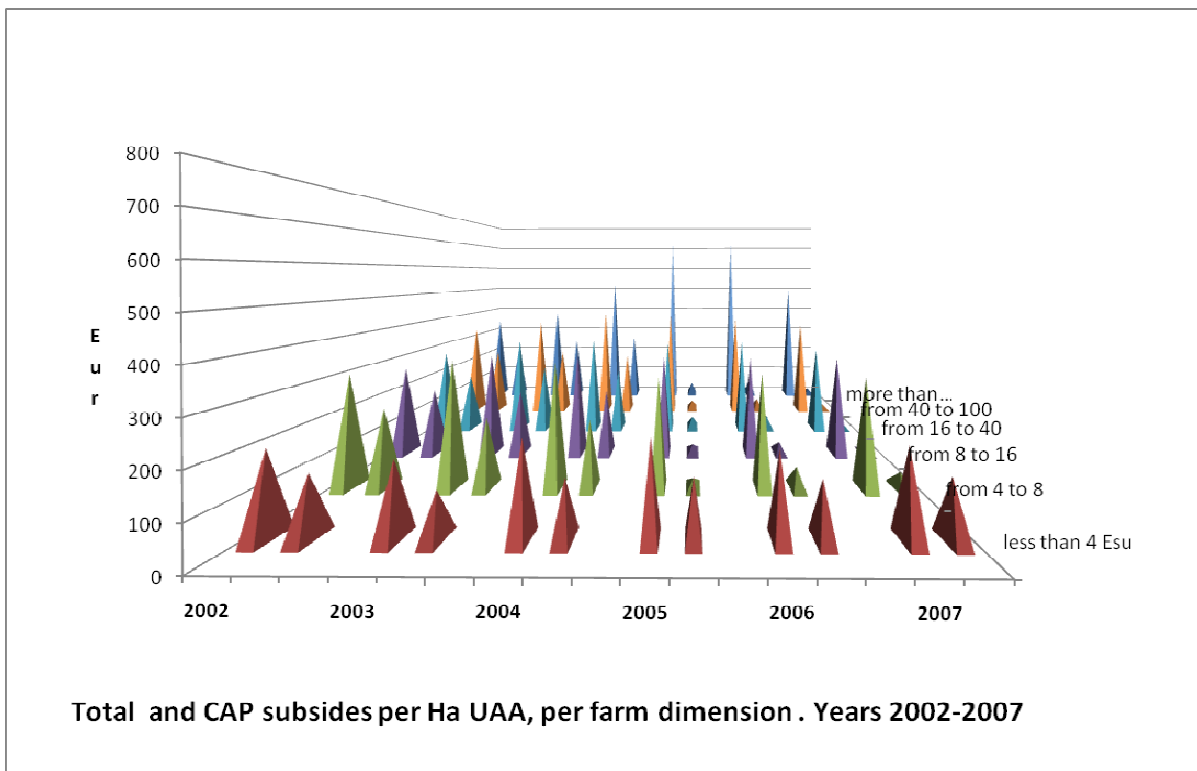
We will show in this paragraph an analysis of official Fer data over the restricted period 2002-2007, for the reason above mentioned: the time restriction will not affect possibility of trend analysis and conclusions. The 2007 data are shown even joined to 2002-2006 data because give more evidence of the Policy cycles and because Fer questionnaire specification remain constant over this period. Since 2008 Istat introduced substantial innovation in the Fer questionnaire which allowed to identify and estimate contributes for single payment.

As anticipated, data analysis do not allow us to say that all the farms react equally to the introduction of the single decoupled payment : the big farms are those which show ready ability to capitalize on the policy innovation, while middle and small farms do not succeed in capitalizing a substantial increment in the total subsidies received per hectare since the introduction of the farm single payment. The big farm clearly have interest and professional resources to react to the Policy novelty, while middle and small farm need much more time to understand the new administrative rules. Nonetheless farm localization and dimension affect and determine type and size of farm area which results eligible for subsidies.

We have to take in to considerations that Fer vector of data under current specification cannot give clear evidence of how farms react to availability of subsidies for Other Gainful

Activities⁶ since the system survey did not yet receipt the necessary specifications to satisfy these information needs. That means that we do not know from this source if small and middle farms which not reacted to CAP single payment could have asked for subsidies for Other gainful activities as landscape maintenance or agri-tourism. Moreover , as we explain above, the reference universe of Fadn-Fer system traditionally is strictly focused on traditional farming activities.

We do agree that the Other Gainful Activities represent an important chapter of the second Pillar and we believe its impact has to be monitored from official statistics.



5.2. Analysis over the period 2007-2008

The data available allow to analyse only the first two years of the Policy cycle 2007-2013.

Data over 2007-2008 period confirm the cycle behaviour of data on subsidies: we evidenced in the previous paragraph that total subsidies per hectare peaked at the end of the first cycle (2006) and this conclusion is confirmed by elaboration on 2007 and 2008 data: in fact as the figure below shows neither the big farms reach the same 2006 level of total subsidies per

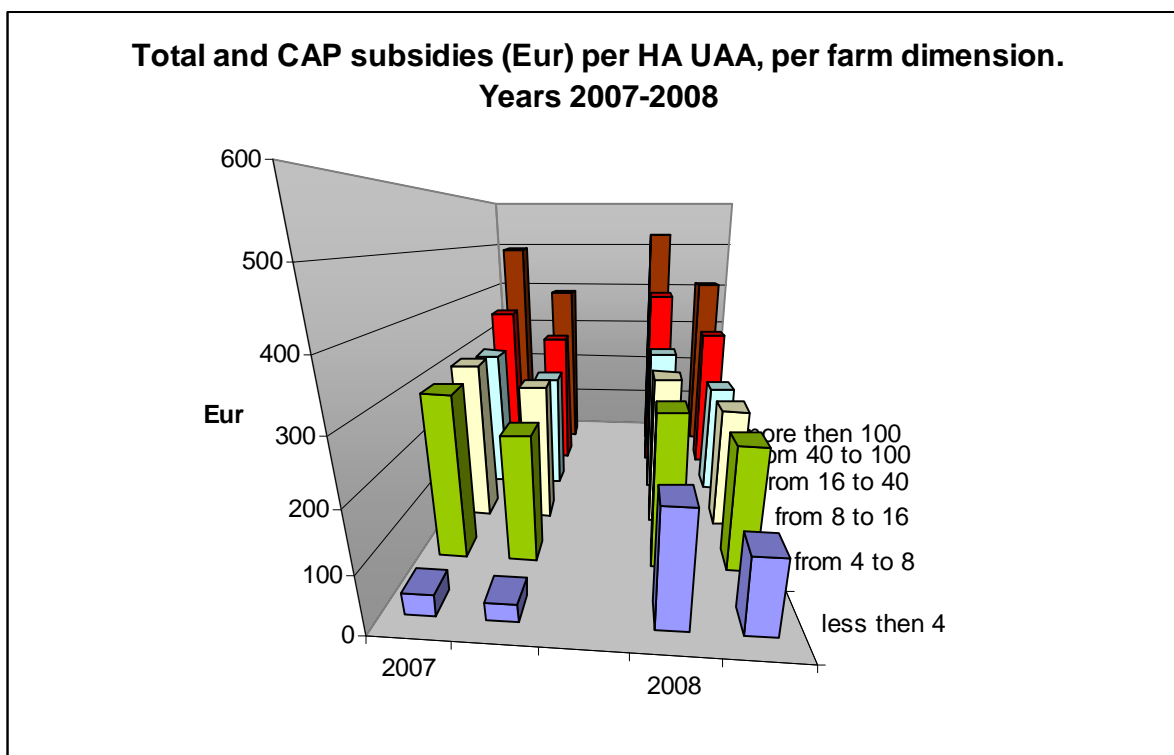
⁶ Other Gainful Activities represent an important chapter of the second Pillar and we believe it has to be monitored from official statistic

hectare, although the data on CAP single payment say that this aggregate did not decrease in 2007 and 2008. This means that reasons for different level (even for big farms) of total subsidies do not rely upon CAP single payment trend. Again we can affirm that the begin of the Policy cycle affect the level of total subsidies received but also that big farm always and still perform better than other and show and ready ability in capitalizing top subsidies level learning by Policy cycle.

Also the contrast between very small and very big farms give evidence of that dimension of farm really affect capacity and ready ability in benefitting of Policies measures. Undoubtedly data show that small farm need really more time to understand the new rules and neither at the end of cycle (it seems) reach the same level of total subsidies per hectare shown by the big ones.

Nevertheless, please note that with this vector of data we cannot be really sure that small farms do not react efficiently to the all complex of Policies measures, since we need to know if and which kind of units react to Other Gainful activities (OGA) measures.

Also, about 300 euro per hectare seems to be the modal value of total subsidies per hectare received by Italian farm population with the exceptions of very small farms and big ones with dimension over 40-50 Esu. This means that about the half of the estimate Italian Utilized agricultural area – related to middle size farms - cash on average not more than 300 euro per hectare of total structural subsidies, including the CAP single payment measure. This is another indicator that induce to believe that probably the Fagn-Fer system survey do not reach to capture information on the implementation of the second Pillar's measures which address the new challenges of the Rural development Policies.



6. WHICH SUBSIDIES TO BE MONITORED

As showed by analysis of data, a re-arrangement of the Fer questionnaire can be desirable in order to estimate –separately and without distortion- figures on single payment and other CAP measure like income and production subsidies. But at the same time it would be desirable to keep separated CAP from RD production subsidies in order to use the results for Policies impact evaluation and other similar exercises.

Organic agriculture and other low impact practices subsidies (as alternative to traditional farming and use of the soil) deserve a special attention: in fact low impact activities, as landscape maintenance, good agro-environmental practices and other gainful activities, promise to represent an increasing proportion of RD subsidies as in the aims of the second Pillar and it would be very useful and interesting to monitor if, how and which kind of units choose to put capital and other resources in these kind of activities.

We highlighted in Chapter 4 and 5 that small farms seems to not react readily and efficiently to policies innovation as CAP single payment; nonetheless estimate from Fagn-Fer system can not yet affirm if and how kind of units respond to not usual farming measures (OGA) of the second Pillar (RD) as neither the questionnaire, nor the reference universe are really draft for this purpose. In other terms we do not have information from official statistics to affirm or to exclude whether the OGA activities can represent the way to survive of small units to the sector's structural adjustment needed and addressed by sector Policies.

7. CONCLUSIVE REMARKS

As expected, since the introduction of the farm single payment, the big farms are those which show ready ability to capitalize subsidies received while small farms didn't seem to catch efficiently contributes distributed by European structural Policies. The big farms clearly demonstrate interest and professional resources to react to Policy novelties, while middle and small farms show they need much more time to understand the new administrative rules. Nonetheless vector of data show that factor as well farm localization and dimension affect type and size of farm area which results eligible for subsidies. Also other gainful activities could result

The analysis has shown that about the half of the estimate Italian Utilized agricultural area –about 5,5 million hectares related to middle farms - receive on average not more than 300 euro per hectare as total structural subsidies, including the CAP single payment measure. Also data show this level as independent of the Policy cycle: that is it remains constant over the period. Instead big farms show a total level of subsidies per hectare more than double and peaking at the end of the Policy cycle. These results of the analysis induce to believe that probably the Fagn-Fer system survey do not reach to capture information on the implementation of the second Pillar's axes which address the new challenge of the Rural development Policies, especially in the case of middle and small farms. This means that survey domain could be partial and focused on the traditional types of farming: condition which reflects a reference

population likely incomplete with respect to the new targets of the second Pillar's measures – OGA for example - which aim to address the new goals of the EU Rural development Policies.

Therefore these results point out as official statistics – eminently FADN survey system – would not provide adequate information to affirm or to exclude whether the OGA activities can represent the way to survive of small units to the sector's structural adjustment needed and addressed by sector Policies. But Policy makers need this kind of information to adjust Policy targets, eventually.

REFERENCES

- Cardillo C., Esposito L. (2010): Effects of the new typology: an analysis based on 2000 Agricultural Census data, PACIOLI 18th, Proceedings of the 18th international workshop on micro-economic databases in agriculture, Ghent Belgium September 2010.
- Gasson R (1973): Goals and values of farmers. *Journal of Agricultural Economics*, 24: 521-542.
- Harper W.M. - Eastman C. (1980): An Evaluation of Goal Hierarchies for Small Farm Operators, *American Journal of Agricultural Economics* 62(4) 742-747
- Greenberg D., Links D., Mandel M. (2003), Social Experimentation and Public Policymaking, the Urban Institute Press, Washington.
- Henke R. (2007): Tipologie aziendali e politiche di sostegno nell'agricoltura italiana, *QA-Rivista dell'Associazione Rossi-Doria*, .
- Henke R. - Salvioni C. (2008): L'impresa agricola multifunzionale: dalla transizione ai sistemi complessi, *Rivista di Economia Agraria*,.
- Marsden T. - Sonnino R. (2008): Rural development and the regional state: Denying multifunctional agriculture in the UK, *Journal of Rural Studies* 24 (2008) 422-431.
- Martini A., (2006), Metodo sperimentale, approccio controfattuale e valutazione degli effetti delle politiche, *Rassegna italiana di valutazione*, n. 34.
- McNally S. (2001): Farm diversification in England and the Wales – what can we learn from farm business survey? *Journal of Rural Studies* 17 (2001) 247-257.
- Meert H. - Van Huylenbroeck G. - Vernimmen T. - Bourgeois M. - van Hecke E.(2005): Farm household survival strategies and diversification on marginal farms, *Journal of Rural Studies* 21 (2005) 81-97
- Van der Ploeg J.D. - Roep D. (2003): Multifunctionality and rural development: the actual situation in Europe, in Van Huylenbroeck G. - Durand G. (eds.), *Multifunctional Agriculture. A new paradigm for European agriculture and Rural Development*, Ashgate, Burlington, VT (USA) e Aldershot (UK).
- Van Huylenbroeck G. - Durand G. (eds.) (2004): *Multifunctional Agriculture. A new paradigm for European agriculture and Rural Development*, Ashgate, Burlington, VT (USA) and Aldershot (UK).
- Van Huylenbroeck G. - Vandermeulen V. - Mettepenningen E. - Verspecht A. (2007), Multifunctionality of Agriculture: A Review of Definitions, Evidence and Instruments, *Living Reviews in Landscape Research*, 3.
- Sotte F. (2006): Quante sono le imprese agricole in Italia?, *AgriRegioniEuropa*, 5.
- Salvioni C., Esposito L., Henke R., Rondinelli V.(2010): Diversification strategies in small farms in Italy, *Economia e diritto agroalimentare*, 3/2010.