

Land Consolidation Policies in Sicily and their Effects on its Farmland

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Abstract

The paper deals with the legislative interventions in the field of land consolidation and their effects in improving the Sicilian land property structure. After a preliminary analysis of the legislative framework at national and regional level, a study on the structural evolution of the farming system in Italy and Sicily during the 1961-2010 period was carried out. In order to appreciate the actual impact and the relative efficacy of such interventions, data concerning the actions for land reorganization provided for by the Measure 4.11 contained in the 2000-2006 ROP for Sicily were analysed. On the basis of the data provided by the Regional Board for Agricultural and Food Resources, it has been possible to state that the political actions for land consolidation in Sicily brought about a very modest impact in terms of both involved land area and sales value, failing to comply with the goals set by the Regional Plan for Land Consolidation. Part of the failure is also due to the pronouncement of incompatibility of certain interventions with the EU Treaty, which has in fact blocked the actions of land consolidation based on financial breaks.

Keywords: land consolidation policies, Measure 4.11 (2000-2006 ROP for Sicily), ISMEA, pathological form of land property, farm structural dualism.

1. Introduction

The pathological aspects of pulverization¹ and fragmentation² of land property, endemic and historical characteristics of the Italian farming system, have been intensifying also as a consequence of the 1950 land property Reform³. These issues are widespread in many countries of the world, and although the triggering events turn out to be quite different (modification of political frameworks, demographic growth, low degrees of activity in land markets, laws on death succession, etc.), several authors are quite like-minded with respect to the effects they may produce (Lanfranchi and Giannetto, 2014; Di Vita et al., 2013).

In 2001, the European Commission (EC) has explained the approval of interventions in favour of land consolidation by the main motivation that "the small average size of farms and the drastic fragmentation of land property still represent the main structural problems of Italian agriculture"; and in the same document it can also be read that "unlike the other EU State members, in the last thirty-year period, Italy has experienced an extremely limited process of farm concentration, in terms of both farm number reduction and farm area increase" (EC Decision SG (2001)D/288933, State Aid No. 110/2001).

The Italian situation (and in particular the Sicilian one) is similar to that one of many CEE countries where "there exists a bimodal farm structure comprising a small number of very large productive units – Co-operatives, private farming companies,

informal associations and partnerships – and a very large number of small-scale farms" (Kostov and Lingard, 2002).

Pulverization and fragmentation, besides not allowing the optimisation of crop production costs, are negative from the technical point of view – as an example the technical difficulty in carrying out land ameliorations such as drainage systems, irrigation and soil renovation. They also bring about loss of agricultural land, due to the necessity of detaching each plot of land from the neighbouring ones through border enclosures (Van Dijk, 2003) – thus reducing efficiency and market competitiveness.

These pathological aspects take place according to a mechanism of horizontal partitioning and vertical scattering which respectively cause a gradual reduction in farm size and an increase in the distance among lots within a farm and between the aforementioned lots and the farm headquarters or the farmhouse (Niroula and Thapa, 2005), with a considerable increase of "downtime" and costs.

The necessity to carry out a land property consolidation has arisen in several countries, which can be defined as the adjustment of land tenure with the specific purpose of setting up larger and more functional plots of land (Pašakarnis and Maliene, 2010).

The Land Reform Laws in Italy, even though issued with the aims of eliminating the long-standing plague of latifundium⁴ and to protect and promote "small peasant property", hereafter did not succeed in keeping the land property entirety.

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¹ Chessa (1941, p.344) in his reference paper states that land pulverization is: "the division of land property in such small parts that cannot guarantee a sufficient income to the farmer, who is therefore compelled to neglect his property and to find a job elsewhere in order to support his income". Pulverization is a typically Italian pathological form of land property organization, essentially due to the regulations concerning the right of succession.

² Chessa (op. cit., p. 346) explains the meaning of the term fragmentation as: "when there are several small land plots, all belonging to a single owner and that do not form a single acreage but distinct allotments, interspersed with land plots pertaining to third parties".

³ Law No. 230/1950, known as "Sila" Law, Law No. 841/1950, known as "Stralcio" Law, and Sicilian Regional Law No. 104/1950.

⁴ One of the several definitions of latifundium found in literature is the following: "the absolute absence or the extreme lack of land investments, of technical and financial machinery and the strong shortage of labour per area unit, the uncertainty of human presence in lieu, the marked crop extensiveness and discontinuity and the infrequency of residential areas, strongly far-between them" (Mazzocchi Alemanni, 1955, p. 94).

Over the years, such structural limits have been furthermore heightened following continual land property divisions, especially caused by inheritance and property transfers between private citizens (Castrataro, 1956; Barbero, 1960). Multiple successions are relatively common in many European countries, while in the UK, for example, the Common Law rule of primogeniture prevents this form of succession in order to avoid land dispersal (Burton and Walford, 2005).

Many other laws and regulations, at a later stage, dealt with the issue of land consolidation, either trying to prevent and deter further fragmentations of small farming property, or trying to promote the unification of plots in order to guarantee a minimum crop management unit.

Nevertheless, these regulatory interventions have not substantially contributed to the development of the Italian farming system which is still hindered by structural problems such as the small size of farms and the fragmentation of land property. In confirmation of such issues, Fabiani (1974, p.26) while discussing land reform claims that "...land reform did not have – either because of the narrow scope of the intervention or its operating methods – the actual aim of integrating the agricultural sector on the whole in the general line of action or openness which was looking at the most important part of the industrial sector and which would have involved just a segment of the agricultural sector" and goes on saying that "...Land Reform gave rise to farms which afterwards would have strengthened that range of family farms over the subsistence level but always at a precarious borderline, which will represent a permanent feature in the events of the agricultural sector in Italy".

Grasso (1974), in order to provide farm property with an adequate economic dimension, suggests identifying and preventing further divisions of land property due to successions "*mortis causa*" and also to private transfers "*inter vivos*", and encouraging expropriation or forced grant of abandoned and uncultivated land to neighbouring farmers, besides promoting cooperation and voluntary grouping.

More recent aggregative models of lands and farms, such as outsourcing, or mixed models of land management, such as firms managing both their own lands and leased ones, defined by Fanfani (2008) as a "*typical Italian way towards new land management and aggregative models, which tries to overcome, with not few difficulties, pulverization and fragmentation, which from time immemorial characterise the structure of Italian agriculture*", have nevertheless helped – though only partially – to hinder the intensity of these pathological phenomena. They effectively influenced – not always following linear and homogeneous development paths and with extremely diversified degrees of intensity – the regional and territorial scenarios of Italian agriculture.

To this end it is necessary to draw the attention to the data taken from the last "General Census on agriculture" (2012), which show, relative to the previous Census (2002), an increase in the average farm size in all the Italian regions, even if in a diversified manner (in Sicily from 3.7 to 6.3 hectares of Utilised Agricultural Area, UAA, per farm), but also a growth of rented and free of charge land utilization (ISTAT, 2002 and 2012).

Regulatory interventions in support of land consolidation, with particular reference to those ones carried out after 2000, finalised to farm enlargement through aid to land purchase by promoting fiscal and credit relief, will represent the subject of the present study, which aims at analysing their effects on rural Sicilian land during the 2000-2010 period.

In more detail, the main legislative bills on land consolidation and the available structural data on Sicilian farms taken from six agricultural censuses were preliminarily examined.

Then the data concerning the land consolidation interventions provided for by Measure 4.11 of 2000-2006 Regional Operational Programme (ROP) for Sicily were issued – which represent the only official information obtained.

2. The main regulatory interventions

The laws aiming to support land consolidation in Italy have been focusing on two distinct courses of action: taxation and credit benefits (Povellato, 2009; Briamonte and Vaccari, 2009).

The first legislative bill in Italy on land consolidation dates back to Law No. 509/1911, which set an exemption from the registry tax in relation to exchange of farmland not larger than 50 hectares.

With regard to the regulations on integral reclamation, in the Unified Code signed by the Royal Decree dated February, 13th, 1933, No. 215, there was the possibility to establish land consolidation authorities, having the power to carry out expropriation and coercive property transfers (Ferrucci, 2004).

The Law No. 1078/1940 included, among other things, some provisions able to avoid the splitting up of small farm units assigned to so-called "peasants"; among these provisions it is interesting to point out the indivisibility obligation of plots, the nullity of "*inter vivos*" transactions and of testamentary dispositions which provided for the division of the plot unit, and the assignment of land, in the case of the landowner's death, to coheirs able to take on the management.

Further normative regulations were implemented in 1948 with the tax breaks provided for by the Legislative Decree No. 114/1948 and with the establishment of the "*Cassa per la formazione della piccolo proprietà contadina*"⁵ (Legislative Decree No. 121/1948).

The system of taxation relief has been made more effective since 1954 (Law No. 604/1954 and subsequent modifications and supplements) and now it provides that stamp duties, legal transcription fees and land registry tax should be reduced for agricultural entrepreneurs, with total exemption in case of establishment of the "*Compendio Unico*"⁶ (Legislative Decree No. 99/2004).

Favourable credit terms, initially based on the activity of the above-mentioned "Credit institution for the creation of small peasant land property" (merged with the Agricultural Food Market Services Institute-ISMEA in 2000 on the application of the section 6 of the Legislative Decree No. 419/99), carried out with the funding of farm purchase or enlargement for young farmers (Law No. 441/1998), with the State Aid No.110/2001 and with the measures provided for by the ROP.

On June 5th, 2001, the EC's Directorate-General for Agriculture approved the interventions for land property reorganization (EC Decision SG (2001) D/288933, State Aid No. 110/2001).

Nationwide ISMEA – which carries out the task of the National Land Institution – was commissioned to provide for two typologies of financial support:

1. Aid for land purchase;
2. Aid concerning legal and administrative costs for land property reorganization and related expenses for surveys.

3. The structural evolution of the farming system in Italy and Sicily

At national level, the trend of farm structure here reported through the analysis of 50 years of censuses is taken from a work

⁵ The *Credit institution for the creation of small peasant land property* had the aim of fulfilling the primary task of land consolidation. It dealt with the purchase of plots, with their possible allotment and resale to farmers, both individual and associate in co-operatives; this institution also arranged for farm improvement to be facilitated, through bank guarantees in the agricultural favourable credit arrangements, and for favourable loans to be granted for the implementation of agricultural addition projects.

⁶ The Legislative Decree No. 99/2004, at the Section II "Farm Entirety", article 7 "Conservation of land entirety", point No. 1, states that after the article No. 5 of the Legislative Decree No. 228/2001, the article 5 bis has to be inserted, which is quoted below in full: *Compendio Unico is meant to be the minimum land extension necessary to the achievement of the minimum profitability level, as it is determined by the Regional Plans for Rural Development in order to allow granting for investments provided for by the 1257/1999 and 1260/1999 (EC) Regulations, and subsequent modifications.*

by Spinelli and Fanfani (2012), whose main findings are summarized below.

The farm number dropped from 4.2 million in 1961 to 2.4 million in 2000, and finally to 1.6 million in 2010. The first marked reduction in the farm number (-16%) was recorded between the 1961 and 1970 censuses, then the decrease nearly stopped in the eighties, restarted with a notable fall (-21%) in the nineties and culminated with a break-down in the new millennium (-32%). It is noteworthy to observe that within this overall decrease, which has no precedent in the past decades, the number of micro-farms halved in conjunction with a real process of development concerning medium and large farms. Land area reduction, expressed in terms of UAA, was sizeable although less significant compared to Total Agricultural Area, TAA (nearly 10% decrease from 1970 to 1982, and 12% in the nineties; in the 2000-2010 period, farm area reduction mainly concerned mountainous and hilly areas) (Spinelli and Fanfani, 2012).

The analysis of the structural change of farms in Sicily was carried out through the examination of statistical data surveyed by ISTAT on the occasion of the 6th General Censuses of Agriculture carried out respectively in 1961-1970-1982-1990-2000-2010 (ISTAT, 1963-1972-1985-1993-2002-2012).

According to the 1st Census of Agriculture of 1961, in Sicily 553,820 farms were surveyed; this number has been diminishing over the years until 2010, when farms had become just 219,330, with a percentage decrease equal to over 60% in the period under observation (Figure 1).

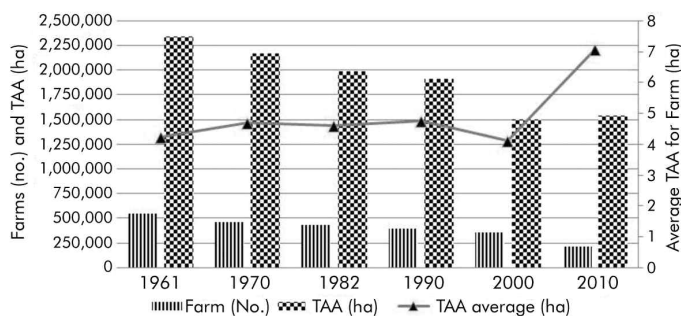


Figure 1. Number of farms and TAA trend in the 1961-2010 period
Source: own elaboration on ISTAT Censuses data

Such a drop in farm number may be ascribable to numerous factors, especially of an economic nature, and has essentially concerned the most inefficient farms in the national market.

As far as the evolution of TAA is concerned, from 1961 to date it passed from 2,344,658 hectares (over 90% of the land area) to 1,549,417 hectares (nearly 60% of total land area), showing approximately a 34% decrease. It is important, however, to highlight the anomalous statistics concerning the 2000 Census of Agriculture, during which a problem in the collection and take-over of data seems to have turned up; it is worth remembering the presence of differences in the definitions with regard to 'the farm' meant as the unit of survey.

The above-mentioned anomaly is even more manifest when investigating the relation between TAA and number of farms. According to the First Census of Agriculture of 1961 the average farm size was 4.23 hectares, and this datum increased in the three subsequent censuses. In the 2000 Census, however, the average farm size dropped to 4.12 hectares, whereas in 2010 it rose again (7.06 hectares per farm).

In 1961, in the province of Palermo TAA was over 466,000 hectares, whereas in the provinces of Catania, Messina and Agrigento it was approximately 300,000 hectares (Figure 2). In the considered period (1961-2010),

decreases in the TAA are apparent everywhere in Sicily. More precisely, in the province of Palermo the recorded reduction in the TAA between the first and the last Census is about 37%; with regard to all the remaining provinces, the percentage variations are in the range between 30% and 40%, with the only exception of the province of Enna, where the drop is about 17%.

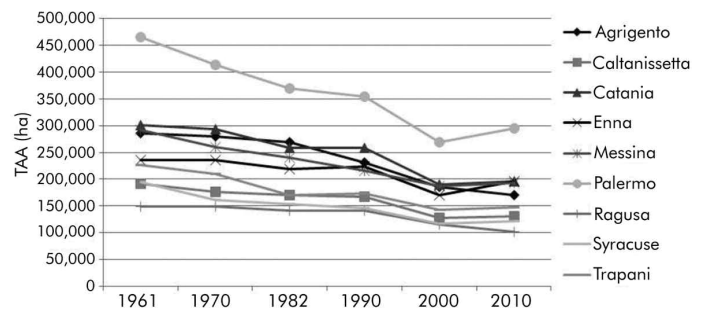


Figure 2. TAA trend in Sicily by province (1961-2010 period)
Source: own elaboration on ISTAT Censuses data

In Table 1, statistics are illustrated on the number of farms surveyed in Sicily and the corresponding farm areas on the occasions of the 6 Censuses of agriculture, classified into 4 classes of farm size.

As to the number of farms, the percentage frequency distribution by classes remained unchanged until the 5th Census, whereas in the 6th Census a percentage decrease in the number of farms with a TAA less than 5 hectares is evident (from 84.88% of total number in 2000 to 73.79% in 2010) in favour of the other classes of TAA (especially of the "10-50 hectares" class increased from 6.30% of total number in 2000 to 12.20% in 2010). With regard to farm area, in the last Census compared to the previous ones, a steady decrease is recorded – especially for small and medium-small farms – whereas farms with TAA over 10 hectares showed percentage increases around 5%.

Small farms have decreased in terms of both number and TAA, while the medium-large farms showed positive percentage variations. Despite the positive trends, over 85% of farms (that is the small and very small ones) hold less than 29% of TAA, whereas over 71% of total TAA is ascribable to the remaining 15% of farms, that is the medium-large ones. This trend gives rise to the so-called phenomenon of farm structural dualism (Lanfranchi et al., 2014; Schimmenti et al., 2010).

In partial confirmation of this phenomenon, Renting et al. (2008) claim that "small-scale farming is not confined to CEE countries, and also in Italy, Greece and Portugal holdings below 1 ESU make up more than 20% of all farms" and they go on writing that "in some countries small farms involve considerable sections of the total farm population".

Table 1. Number of farms and TAA in Sicily by size ranges

Size classes (ha)	Farms		TAA		Farms		TAA	
	(No.)	(%)	(ha)	(%)	(No.)	(%)	(ha)	(%)
					1961			
≥ 0 < 5	464,751	83.92	661,100.49	28.20	375,785	81.15	569,479.76	26.14
≥ 5 < 10	50,589	9.13	348,688.46	14.87	50,295	10.86	340,839.28	15.65
≥ 10 < 50	33,408	6.03	649,002.92	27.68	32,402	7.00	616,086.42	28.28
≥ 50	5,082	0.92	685,866.27	29.25	4,593	0.99	651,901.13	29.93
Overall	553,830	100.00	2,344,658.14	100.00	463,075	100.00	2,178,306.59	100.00
					1970			
≥ 0 < 5	356,907	82.25	508,439.49	25.52	332,390	82.48	460,925.73	24.08
≥ 5 < 10	42,857	9.88	288,103.45	14.46	37,763	9.37	255,510.45	13.35
≥ 10 < 50	29,910	6.89	570,297.57	28.62	28,468	7.06	553,480.72	28.92
≥ 50	4,252	0.98	625,640.21	31.40	4,388	1.09	643,924.64	33.65
Overall	433,926	100.00	1,992,480.72	100.00	403,009	100.00	1,913,841.54	100.00
					1982			
≥ 0 < 5	309,709	84.88	393,253.31	26.14	161,847	73.79	265,825.52	17.16
≥ 5 < 10	28,654	7.85	197,192.64	13.11	25,444	11.60	175,507.14	11.33
≥ 10 < 50	23,001	6.30	459,061.48	30.52	26,763	12.20	551,660.00	35.60
≥ 50	3,530	0.97	454,732.85	30.23	5,276	2.41	556,424.68	35.91
Overall	364,894	100.00	1,504,240.28	100.00	219,330	100.00	1,549,417.34	100.00

Source: own elaboration on ISTAT Censuses data.

4. Materials and methods

ISMEA, as an institution in charge of land property re-organization, has been acting as a go-between with seller and buyer and as a guarantor of the observance of the rules provided for by law, in accomplishment of the State Aid No. 110/2001, and afterwards also of the Measure 4.11 "Land reorganization", included in the 2000-2006 ROP for Sicily.

Usually the procedure consisted in several steps, as illustrated below. First of all, ISMEA identified the land plots for which an evidence of interest to sell had been showed by their owners. Further to the statement of willingness to purchase by the applying parties, the above-mentioned institution commissioned its own technicians to carry out the assessment of the market value of these land plots through the application of the income capitalization approach⁷.

In a subsequent moment land was transferred to a single buyer, who was – in 80% of cases – a young farmer, or to an agricultural co-operative which had applied before and was in possession of all the requisites.

The regime of public aid also provided for a 100% grant covering legal, administrative and technical costs related to the transaction; the aid for land purchase was granted in the shape of a finance lease or of direct property leasing. The other subsidy (capital account) acted on the reduction of the interest share on the annual instalments to be paid for the loan granted by ISMEA. The percentage reduction was equal to 40% or 30% of the admissible expenses respectively for land plots situated in disadvantaged areas and in the other areas.

Then ISMEA ratified the sale with the "Patto di Riservato Dominio"⁸, which was stipulated by various notaries usually selected in a restricted number for each region.

On the 31st December 2009 ISMEA ceased its activity within the above-mentioned Aid Regime, since this was regarded as incompatible with the EU Treaty and with the competition rules on the equality of treatment of the different transactors.

For this current study, the only information obtained with reference to the 2000-2009 period at national level led to an approximate estimate of around 3,000 stipulated transactions concerning 60,000 hectares of agricultural land. Moreover, those data were indirectly surveyed through Parliamentary Documents (www.camera.it), Reports by the Court of Accounts 2000-2010 due to the lack of official data by ISMEA.

To this end, it is worth remembering that the concomitant official request for data concerning the activity carried out by ISMEA, submitted to the "ISMEA Centre for land mobility" (with reference to both the national and the regional framework) had no written reply, contrary to our expectations.

Meanwhile a survey of the whole statistical universe of transactions concerning the application of the Measure 4.11 included in the 2000-2006 ROP for Sicily was carried out with the collaboration of technicians from the Regional Board for Agricultural and Food Resources who, upon our specific request, supplied their available data. Nevertheless, for the purpose of the study they turned out to be incomplete since they do not cover the whole period under consideration⁹.

5. Results

The 2000-2006 ROP for Sicily pinpointed the Measure 4.11 as a tool for "the promotion of a process for the restructuring and enlargement of the average size of regional farms, which will not

be carried out without a prevalence of investments concerning land purchase", with the purpose of rationalising farm size by achieving "a more efficient farm structure, such as to obtain advantages on the side of production costs and to increase the capacity of agricultural enterprise to bring about process and product innovation".

The above-mentioned measure set the goals to increase the average size of Sicilian farms through the reduction of land property fragmentation and pulverisation, and to realise integrated projects of land property reorganisation through reconversion and modernisation of farming structures, with particular focus on the creation of agricultural units managed by young farmers.

The Measure 4.11 provided for two different investment typologies: the first one concerned the immaterial investments, such as surveys and studies for the drawing up of land reorganization programmes or for the identification of potential infrastructural requirements; the second typology concerned the material investments for the drawing up and arrangement of ameliorative exchanges and of purchases and land plot assignments for the purpose of the creation and consolidation of efficient farms.

The former stage regarding the immaterial investments was completed during 2002 and allowed the fulfilment of the Regional Plan for Land Consolidation (RPLC) (Regione Siciliana, 2002, 2007) and, therefore, the start-up of the second typology of investment provided for by the measure.

In order to implement material investments, that is to say for the purchase of land through exchange, enlargements and consolidation, the Sicilian Regional Board stipulated a specific agreement with ISMEA; in particular, through direct real estate leasing (Regulation (CE) No. 1685/2000 and subsequent modifications and supplements), the grantor (ISMEA) authorised the agricultural entrepreneur to acquire a piece of land according to the operating conditions provided for by the Aid System No. 110/2001.

The beneficiaries of the Measure 4.11 are listed below: "independent farmers, 'farmers practising farming as their main occupation' (art. No. 3 of Council Directive 72/159/EEC) and small independent farmers, tenant farmers, farm labourers and young farmers (according to the provisions of article No. 4 of Law No. 441/1998), as well as stock companies".

The implementation of material actions, in accordance with what was provided for by the Programme Complement related to 2000-2006 ROP for Sicily (Regione Siciliana, 2003 and 2007), was structured in two phases: on one hand the first phase, the "start-up", concerned the financial resources allocated by ROP as year 2001 in order to subsidize the applications related to the Sicilian territory and in compliance with the RPLC provided to ISMEA in accordance with the Law No. 441/98 starting from 1999 until the approval of the plan in question. On the other hand, the second phase regarded the implementation in effect, for the utilization of the resources related to the financial years subsequent to 2001.

Overall the measure has concerned 466 transactions, of which 230 were related to the "start-up" phase and the remaining 236 to the actual implementation. Within the second phase, the measure has dealt only with the first call for applications (published in 2003), since in 2005 the financial resources of the Measure 4.11 were moved to the first Axis of ROP for Sicily (Decision No. 5847/2005/EC) due to some criticism advanced by the European Commission on the occasion of the 2005 Monitoring Committee. This criticism referred to the acknowledgement of ISMEA's technical, administrative and legal expenses and to the eligibility of costs for buying rural buildings located on the purchased lands (Presidenza della Regione Siciliana, 2011).

⁷ On the basis of a dedicated survey form drawn up by ISMEA, the technical-economic data necessary to go on with the determination of farm land income were acquired, whereas a score was assigned to the different intrinsic and extrinsic features – related to the land plot, secondary features and related to the area. Starting from this score, the capitalization rate to be used in the assessment was subsequently calculated.

⁸ The agreement of reserved possession is a special contract which includes several clauses, of which it is crucial to cite the following ones: land plot is not saleable before 5 years and it is not dividable for 15 years, the buyer has the duty to improve on farm land without changing its land use for at least 10 years. Moreover, the agreement includes the timely payment of instalments and of the due amounts of money, and lastly the stipulation of an insurance policy in favour of ISMEA in case of damage caused to the real estate.

⁹ In order to consider the relative expenses as admissible, the interventions, from a financial point of view, had to refer to the period from October 1999 to June 2009.

The land property reorganization in Sicily, in accordance with the Measure 4.11 and on the basis of the available official data, entailed 466 stipulations, regarding an overall land area of 11,253 hectares and a sales volume of 105,000,000 euro (Table 2). These operations interested all the Sicilian provinces and were mainly concentrated in Syracuse, Catania, Enna and Palermo, where on the whole over 58% of the total number of contracts and 65% of land area were recorded (Asciuto et al., 2013).

The average price per stipulation was around 225,300 euro, with a range between a minimum amount of 126,500 euro (within the province of Messina) and a maximum value of 791,700 euro (within the provinces of Trapani and Palermo).

Also the average price per hectare of transferred land shows a considerable variability from province to province: unitary land prices in the provinces of Palermo, Enna and Messina remain far below the regional average (9,300 euro/hectare), whereas in the remaining provinces they are far higher than the above-mentioned amount; among the latter group, Trapani and Catania/Syracuse stand out with unitary prices respectively equal to 14,900 euro/hectare and 19,800 euro/hectare.

Land re-organization has involved on the whole 138 out of 386 municipalities eligible for the Measure 4.11 according to what was provided for by RPLC.

More specifically, the municipalities admitted to the interventions were classified according to the RPLC zoning – extensive and intensive rural areas. In the first category (defined by a percentage ratio between intensive UAA, and total UAA lower than 30%) were stipulated 243 acts of purchase involving the transfer of around 7,440 hectares for a corresponding amount of 54.3 million euro; conversely, in the intensive agricultural areas (with a ratio between intensive UAA and total UAA equal to or higher than 30%), 212 purchase transactions were carried out, with 3,444 hectares sold and a total corresponding value equal to 47.0 million euro (Table 3).

Just 11 acts of purchase regarded land areas situated in both intensive and extensive municipalities; in these cases the involved area was approximately 370 hectares for a total value of 3.6 million euro.

The intensive areas show the highest unitary price (13,667.35 euro/hectare) but conversely an area and a unitary value per act which are lower (respectively 16.25 hectares and 222,050 euro)

than those related to extensive areas. In the latter, the sale unitary price turns out to be the lowest (7,297.91 euro/hectare), the average sold land area is about double that of the previous group and the unitary value per stipulation is just higher than the one observed in intensive areas. The extensive/intensive areas are situated at an intermediate level only as far as the unitary value per hectare is concerned (9,811.44 euro); on the other hand the average land area and the average cost per single act are the highest (33.45 hectares, 322,204.08 euro respectively).

In short, the measure for land re-organization had a very modest impact on Sicily's rural system both in terms of number of acts and of involved areas in view of the weak points noticed by the EC that brought about their termination in 2005; in connection with this, it is worth remembering that facing a forecast of public expenditure equal to 144,350,000 euro, just 27.3% of the available financial resources (39,349,870 euro) was utilised for the Measure 4.11.

6. Concluding remarks

The statistical and literature analyses carried out in the current study showed that until the end of the XX century the legislative interventions in the field of land consolidation had not provided a significant contribution to the solution of the apparent structural problems of Italian and Sicilian farming system.

This study aims at investigating the effects of the above-mentioned legislative actions for land consolidation in Sicily – State Aid No. 110/2001 and other EU financial instruments – and at reconstructing a general framework in order to appreciate the actual impact and the relative efficacy of such interventions in achieving an improvement in the land property structure.

More specifically, this research paper has taken into account data concerning the interventions of land reorganization provided for by the Measure 4.11 contained in the 2000-2006 ROP for Sicily. With this regard, it is necessary to mention the reluctance – formally stated by the ISMEA Observatory for land mobility – to provide us with the officially requested data.

On the basis of the data provided by the Regional Board for Agricultural and Food Resources, it is possible to state that the political actions for land consolidation in Sicily brought about a very modest impact in terms of both involved land area (just over 11,000 hectares compared to an overall 1.5 million hectares of regional TAA) and sales value (around 105 million euro), failing to comply with the goals set by the RPLC. Part of the failure is also due to the pronouncement of incompatibility of certain interventions with the EU Treaty, which has in fact blocked the actions of land consolidation based on financial breaks.

According to Crecente et al. (2002), “*land-consolidation policies usually had agricultural goals initially, but have increasingly become instruments for rural development*”. These instruments in the future perhaps will have to work in a different way, on the one hand with less bureaucracy for not discouraging farmers, on the other hand with simpler and more transparent criteria for the appraisal of land value, better still if based on a database of land prices collected for different areas and years, to be created “*ad-hoc*” and updated over time with the purpose to make it available to the agents (Schimmenti et al., 2012).

In the hypothesis of further developments of the current study, it might be interesting to analyse the incidence of different land management typologies, investigating the presence of land rents by agricultural firms, quite common abroad but not in the Italian context, and particularly not in the Sicilian territory. **Q-as**

Table 2. Application of the ROP Measure 4.11 in Sicily

Provinces	Stipulation (No.)	Municipality (No.)	Area (ha)	Stipulation value (€)	Value/ha (€)	Average value for stipulation (€)
Agrigento	48	19	1,058.23	9,945,238.93	9,398.01	207,192.48
Caltanissetta	41	11	1,184.79	13,089,867.54	11,048.23	319,265.06
Catania	79	16	2,091.78	24,751,763.55	11,832.88	313,313.46
Enna	55	14	1,647.34	9,895,422.12	6,006.92	179,916.77
Messina	24	16	419.56	3,036,003.94	7,236.08	126,500.16
Palermo	54	25	1,906.07	11,119,118.37	5,833.53	205,909.60
Ragusa	35	9	493.94	4,714,520.91	9,544.72	134,700.60
Syracuse	86	14	1,693.99	17,705,030.11	10,451.67	205,872.44
Trapani	42	14	651.05	9,715,879.89	14,923.51	231,330.47
Catania/Syracuse	1		11.21	222,861.24	19,883.59	222,861.24
Trapani/Palermo	1		95.14	791,760.91	8,322.39	791,760.91
Sicily	466	138	11,253.09	104,987,467.52	9,329.66	225,294.99

Source: own elaboration on Regional Department of Agricultural and Food Resources data.

Table 3. Indicators by territorial boundary for ROP Measure 4.11 in Sicily

	Extensive areas	Intensive areas	Extensive/Intensive	Total
Stipulations (No.)	243	212	11	466
Area (ha)	7,440.78	3,444.34	367.96	11,253.09
Average surface/stipulation (ha)	30.62	16.25	33.45	24.15
Stipulation value (€)	54,302,178.56	47,075,044.08	3,610,244.88	104,987,467.52
Value/ha (€)	7,297.91	13,667.35	9,811.44	9,329.66
Average value per stipulation (€)	223,465.76	222,052.09	328,204.08	225,294.99

Source: own elaboration on Regional Department of Agricultural and Food Resources data.

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