

*MAURIZIO LANFRANCHI*

*CARLO GIANNETTO*

## **SUBSIDIZED AGRICULTURAL CREDIT AS A TOOL FOR REVITALIZATION OF AGRICULTURAL ENTERPRISE<sup>1</sup>**

### **Introduction**

The process of globalization has been in place for several years now and has imposed on all markets considerable sacrifice for agricultural enterprises to restructure and reorganize, in order to respond to the increasingly insistent demand for greater levels of competitiveness. It must be remembered that the search for competitiveness in the primary sector, has not represented in the past, a priority to be included in the process of formation of business decisions. However, due to the changing of guidelines by the CAP, which has phased out support to only producing binding support to the production of environmentally friendly production processes, recently the use of competitive business models has been one of the most important aspects of the new model of Italian agricultural enterprise, which focuses mainly on competitiveness that strives for food production excellence.

Although the pursuit of improved levels of competitiveness can be achieved by focusing on quality, but for most of the Italian farms it will probably be necessary to initiate a restructuring process to include, in addition to land consolidation and fragmentation of the agricultural offer, modern management orientated on containing production costs, thanks to the exploitation of economies of scale resulting from association and forms of association to allow vertical and horizontal integration of the various stages of the production process. To this end, access to credit for investment in agricultural enterprises becomes instrumental and vital. In fact, the not renounceable essential process of technological evolution has required in time an increasing propensity towards improving the company's working capital and land, the latter over the years has had to deal with the waning of the active labour force, due to the rural exodus, thus being forced to have to replace part of the production labour factor with technology capital, to increase productivity per hectare and per farm worker.

---

<sup>1</sup> The work is the result of a complete cooperation and it is, therefore, of responsibility of both the authors. The material drawing up of paragraphs 1, 3 and 6, are attributing to Maurizio Lanfranchi, paragraphs 2, 4 and 5 to Carlo Giannetto. The authors wishes to thank Prof. Francesco Rotondo for his advice and for the time dedicated to this work.

The propensity to investment is higher where the enterprise is run by young people, so, if the socio-economic objective of the national agricultural policy is to encourage young people to remain in agriculture, in time there will be more loan applications and more credit for businesses.

Therefore, in 2008 with the entry into force of the new Capital Accord, known as Basilea 2, we have the event that most influenced the relationship between agricultural enterprises and the banking system for lending, which constitutes for the agricultural enterprise the main source of external financing.

The banks, being mostly engaged in the activity of credit intermediation, have as their main risk their credit. Hence the importance of the evaluation and management of credit risk linked to economic conditions and prospects of agricultural income.

The application of Basilea 2 gives rise to the objective difficulties for the banking system, linked to the application of an internal "rating" system to be applied to agricultural companies. This is because on one hand, taking into account the distinguishing features of typical and agricultural enterprise, the correct "rating" valuation requires an allocation of human capital, specifically responsible in developing estimates of profitability and rapid assessments of business prospects, and on the other hand there are other concerns for agricultural enterprises which fear repercussions associated with systems of assessment of the individual ability to access to credit by the companies themselves.

### **The new rules for the granting of agricultural loans**

In recent years, practices and procedures relating to the granting of agricultural loans have undergone profound changes. Before 1994, the reference standards were essentially the law n.760 of 1928 and the Banking Act of 1936. The relationship between the primary sector and credit was characterized by a narrow and rigid relationship given by national law. In Europe there were different procedures for the granting of credit to agricultural enterprises, in some countries, such as the United Kingdom, there was no any distinction between the types of credit required by different companies, so there was no specific legislation on credit in agriculture; in Germany, Austria and the Netherlands, however, the grant occurred mainly through co-operative banking structures, and finally other countries, like Italy, France and Spain, there was specific legislation that awarded substantial benefits to farms. In Italy, the agricultural credit was defined as a special purpose credit and was classified as an operating loan (the loan was for a short period within 18 months and was aimed at the purchase of livestock, machinery, equipment and goods used by the members), and credit enhancement (in which the loan was for an extended period, no more than twenty-five years, and was intended for land improvements, such as reforestation, rural development, irrigation works and land reclamation, etc.). To these types of credit, the eligible categories were physical people and legal companies, associations, consortia and mountain communities. With this system, credit was made possible by the existence of guarantees rather than worthy financial

conditions. With the approval of the Banking Act, after January 1, 1994, in implementing the European Directive on the coordination of banking, important innovations were introduced, both for agricultural credit, and for those qualified to grant it. The agricultural credit remains a credit of “purpose”, and is not specifically bound to a precise technical form, but to the characteristics of the productive activity of the enterprise financed. With respect to the providers of credit, the TUB introduced, into the Italian model, one of “universal bank” and all banks can provide agriculture credit for the principle of competitive equity of the banking system at EU level. The list of expenses eligible for financing was also abolished; credit is defined as a loan to a company, which has to be analyzed for its overall financial needs. The bank also performs business activities and as such is considered as a private activity. The only remaining distinction is linked to the temporal duration of the credit, thus remaining short term credits, medium and long term. Moreover, given Legislative Decree 228/01, and its guidelines on the modernization of agriculture, which has extended the period of need of the farmer not only to the stages of processing, manufacturing and marketing but also to subsequent steps, which include activities indirectly related to agriculture, the sustainable and functional relationship of connection, such as tourism (for example, a farm holiday). With the new model of lending, a system of de-specialization is created cancelling the link between the granting body and the exercising of the agricultural loans. The new law does not provide rigid rules of limitation or of eligible subjects, yet facilitated agricultural credit has been slowed down greatly. Since the beginning of 2008, the new Basilea Accord (known as Basilea 2) has been applied on capital requirements of banks: it has the main purpose of creating a closer link between bank capital and the risk assumed by banks through the use of internal and external ratings. In addition, among other objectives it strives to create greater security and stability within the financial system; promote competitive equality; promote research and detect methods to measure risk; to encourage specific operations to banks operating in international contexts. The new regulation aims, therefore, to create a closer link between evaluations of capital adequacy and the main elements of risk inherent to banking. With regards to the assessment of credit risk, two solutions have been proposed: the use of a “standard approach” that uses external “ratings” such as Standard & Poor’s or Moody’s Fitch IBCA, or an approach in which the use of internal “rating” systems developed by banks if they met certain criteria. In addition to the concepts of credit risk and market risk (financial), there is the concept of operational risk, defined as risk of direct or indirect loss resulting from inadequate or failed internal processes, human resources or internal systems, or of external origin.

### **Factors for determining the relationship, banking system-agricultural enterprise**

The evolutionary process of the relationship between banks and agricultural enterprise can be traced to two factors: the changing orientation of CAP and changes in the regulatory framework.

The new CAP, as required by the Fischler reform, has made a gradual decline in funding the first pillar (income support and market support) for the benefit of interventions for rural development as a result of modulation. This choice, combined with the decoupling and the conditions of the EU support, forces farms to face a reduction of aid and to operate in a market that, having shut down every protection barrier in international markets, re-orientates the production decisions of the entrepreneur towards the realization of the multifunctional agricultural model, this model considers vital the use of agricultural diversification for the survival of companies.

In relation to the influence of PAC on the relationship between banks and agricultural enterprise, one can say that the reduction of Community support pushes farmers to seek alternative sources of funding.

To this are also added the subsequent effects of the Basilea 2 Agreement, which, has as its main point of access to credit a correct assessment by the banks of the creditworthiness of the company, thus determining the need for banks to equip themselves with a rating system capable of not only analyzing the property situation of companies, but also their management capacity to generate sufficient cash flow to repay the capital borrowed and the interest on the loan.

### **The relationship between farms and the granting of credit as a result of new reforms**

Farms (and holiday farms), operating in a context different from commercial enterprises, take on special features, such as a modest operating margin, low reliability of accounting tools, large loans at short and medium term, strong dependence on intervention and government support, high capitalization, high average age of the operator. For these reasons, historically the relationship between agricultural enterprises and access to credit has always been complex. Today, even more so, banks have difficulty in assessing farms because of false statements on land value income and the lack of specific skills; the difficulty in repaying the agricultural credit, linked to the dependence of production cycles, the tendency to have contacts for the collection of money rather than giving loans. In light of the new features introduced by Basilea 2, the farmers will have to have the ability to diversify access to credit at lower costs and have to adopt the criteria of flexibility to change credit contact depending on the needs and the needs that will arise. In addition, they will have to provide more information and financial assets so as to acquire skills in both planning and financing, prepare accurate estimates and accurate final balance sheets (such as budgets, business plans, etc), and give all the financial information to the bank.

Agricultural enterprises, unlike in the past, no longer have to only worry about the supply phase, processing, manufacturing and marketing but will need to assess the risk of their business investment through the monitoring of their credit exposure, the study estimates of hedging credit risk, the support of company decisions on corporate and commercial risk and the rating of potential borrowers. To implement these activities the agricultural enterprises

are invited to seek the help and advice of the relevant structures (a valid contribution may be represented by the Consortium or Districts), and will have to consider that the “rating” of Basilea 2 is not claimed as the only tool to determine company value. In this context the guarantees will have a key role, especially the instruments which are identified by the new regulatory system: the system of safeguards implemented by Legislative Decree n. 102 of 2004 and the scheme to facilitate access to the money market by creating an Investment Fund from risk capital.

### **The use of funding in agriculture of Italian companies**

Over the last decade the trend of bank loans to the primary sector has been upward. In fact, between 2000 and 2010 the annual growth rate of loans totalled approximately 7%. However, the trend of granting loans is different than the added value of the sector, where there was a decrease of more than 1%. The inevitable consequence has been the growth of debt per unit of product. The growth in the use of bank loans is attributed to both supply and demand. The positive change in demand has been facilitated by structural changes in the industry, which led to a decrease in the number of companies and operators and to the progressive concentration of production in large enterprises, reduction of public assistance, and a change in the number of Community support tools. Among the factors that led to the increase in supply, we can highlight the improvement in credit market conditions particularly favourable for brokers that have characterized a large part of the decade; the structural changes in the banking sector, which have raised the competition among intermediaries, and the continuing of the process of restructuring in the Italian banking industry. The agricultural interest rates on short-term loans were, on average, close to 8%, even though at the end of 2009 there were about 6%; interest rates on medium and long term, however, averaged 5% in the decade to December 2009 and amounted to 3.4%.

Since 2007 all the Italian regions have increased their demand for access to agricultural credit, and this, among other things, was driven by lower default rates than other sectors of activity, but by the end of 2008, the quality of credit has suffered a sharp decline. Growth in loans to the agricultural sector, while reflecting the general economic conditions, was more sustained and default rates of agricultural enterprises were less. Data on bank lending to the agricultural sector prepared by ABI observatory Banks and Companies, revealed an average growth rate of loans amounting to about 6%, with variations depending on the different regions observed. With the exception of Sicily and Valle d’Aosta, which decreased respectively by -0.4% and -3.8%, all other micro-regions have shown a trend of interesting growth.

Table 1

## Lending in the agriculture sector in Italy

Region	Amounts		%
	2007	2008	
Piemonte	2.271	2.369	4,3
Valle d'Aosta	52	50	-3,8
Liguria	350	357	2
Lombardia	5.892	6.492	10,2
Trentino Alto Adige	1.415	1.573	11,1
Veneto	4.086	4.378	7,1
Friuli Venezia Giulia	952	1.031	8,3
Emilia Romagna	3.903	4.093	4,8
Marche	990	1.037	4,7
Toscana	3.823	3.964	3,7
Umbria	828	878	6
Lazio	1.885	1.956	3,7
Campania	1.006	1.035	2,9
Abruzzo	570	612	7,4
Molise	167	183	9,6
Puglia	2.003	2.129	6,3
Basilicata	401	402	0,2
Calabria	690	712	3,2
Sicilia	2.305	2.295	-0,4
Sardegna	777	817	5,1
	<b>34.366</b>	<b>36.363</b>	<b>5,9</b>

Table 1 shows that the region in 2008 that made greater use of credit was Lombardia, followed by the Veneto, Puglia, Emilia Romagna and Tuscany. The following table shows, however, the total amount of loans per year from 2004 to 2008 and the relevant sector to which they are intended for.

Table 2

The total amount of loans per year

ANNI	TOTALE IMPIEGHI	INDICE (2002=100)	TOTALE AGRICOLTURA, SILVICOLTURA E PESCA	INDICE (2002=100)	% AGRICOLTURA/ TOTALE	% PIL AGR./PIL TOTALE
2004	684.975	100	29.942	100	4,37	2,53
2005	720.382	105	31.831	106	4,42	2,20
2006	805.716	118	34.091	114	4,23	2,12
2007	898.726	131	36.002	120	4,01	2,05
2008	952.516	139	37.421	125	3,93	2,01
2009 (30/06)	949.003	139	37.713	126	3,97	-

Finally, Table 3 shows the demand of each individual sector of the agricultural market and its weight percentage nationwide. The area, which needs a greater contribution is undoubtedly the livestock sector followed by the fruit and vegetables sector.

Table 3

Credit Requirements in Agriculture (2009)

Production Areas	PLV .000.000€	%
Fruit & Vegetables	1.219,20	30,8
Wine & Vineyards	241,75	6,1
Livestock	1.714,27	43,3
Other areas	780,49	19,8
Total	3.955,71	100

### A model for evaluating risk in Italian farms

#### *The assessment of credit under Basilea 2*

The assessment of creditworthiness is a crucial step in the process of credit risk management and focuses on the estimation of financial strength and profitability of the company. This assessment is the sine qua non for access to bank credit, because it is able to determine the potential and possibilities of agricultural enterprises and hence their degree of reliability and risk.

For the purposes of a credit assessment process, balance sheet data is used to calculate a set of indicators, which when included in rating models assign a rating score.

The application of the rating model established by ISMEA in collaboration with Moody's KMV, allows for assessing the reliability and soundness of companies operating in various sectors of agriculture and is used for the supply of funds in the form of loans and other funding to farms.

The rating model is the scenario of a new national agricultural sector, which has as its primary objective to implement a rating methodology capable of assessing the farms, taking into account their specific characteristics in the economic system in which they operate and then taking into account the typical, peculiarity and heterogeneity that characterizes Italian entrepreneurial agriculture. The need to resort to such an important tool stems from the fact that the process of risk assessment of agricultural companies is, as mentioned above, a key element in the business-financial world relationship from Basilea 2 on.

The above model has been developed taking into account the different types of farms to be assessed for that reason they have been grouped into three categories:

- capital companies, with mandatory budget (ISMESM-MM),
- small and medium-sized farms, without having to budget (ISMESM-EMS),
- Agricultural Cooperatives (ISME-COO).

The process of evaluating an individual farm is done through the use of statistical models that consider quantitative and qualitative factors. In particular, among the quantitative factors are to be included publicly available financial information; part of the second set of factors are all the qualitative variables that reflect the state of "health" of a farm.

Particularly important is the model for the evaluation of the rating of small and medium-sized businesses that are not required to prepare a budget, which is why economic and financial analysis becomes extremely important for the assessment of their creditworthiness. In fact, through economic and financial analysis you can get all the financial information necessary for determining a rating. The information sought relates to the use of the area, sales revenues and income that has not yet actually been collected by the end of the year, expenditure on the purchase of inputs, including personnel costs, the total amount of subsidies received, the value of inventories, land, buildings, and livestock production quotas, machinery and equipment, cash and debt situation. The methodology adopted is that of scoring cards (scorecard), compiled using information gathered from five areas of analysis of a questionnaire. The model is therefore applicable to all agricultural enterprises that have no budget, overcoming the difficulties of financial institutions concerning their need for financial data and, therefore, the business issues related to the availability and communicability of such information.

## References

- Allen L., Gale D.: *Comparing financial system*, MIT press, Cambridge MA, 2000.
- Altman E.I., Onorato M.: *An integrated pricing model for default able loans and bonds*, Stern University, New York 2002.



- Bianchi T., Carosio G., Frasca F.M., Cassese S.: *I cambiamenti nella regolamentazione sui requisiti patrimoniali e negli assetti proprietari delle banche – interventi tenuti nell'ambito del Seminario: redditività, patrimonio e mutamenti organizzativi nelle banche italiane*, Perugia 2002.
- Cantino V.: *Valore d'impresa e merito creditizio, il rating*, Milano, GIUFFRÈ 2002.
- “Journal of Banking and Finance” 2000.
- Crivellaro: *Il nuovo credito bancario alle imprese agricole cosa è cambiato con Basilea 2*, Sole 24 Ore, Agrisole, Milano 2008.
- Fabi F., Laviolas, Reedtz P.M.: *The impact of Basel II on the Italian corporate sector and on Italian banks*, atti del convegno *Risk and stability in the financial system: what role for regulators, management and market discipline?*, Università commerciale L. Bocconi, Milano 2002.
- Hamerle A., Rösch D.: *Response on The New Basel Capital Accord*, Università di Regensburg, Germania 2003.
- Heitfield E.: *Rating System Dynamics and Bank-Reported Default Probabilities under the New Basel Capital Accord*, Federal Reserve, Washington 2004.
- Lanfranchi M.: *Dal Trattato di Roma alla Health check*, Edas, Messina 2008.
- Maino R.: *Fare credito alla luce degli accordi di Basilea 2: limitazione o risorsa strategica?*, [in:] *Credito bancario e rating d'impresa: i nuovi scenari proposti dagli accordi di Basilea*, intervento all'assemblea dell'Unione degli industriali della prov. di Varese 2002.
- Nadotti L.L.M.: *Rischio di credito e rating interno*, EGEA, Milano 2002.
- Salemi M.: *La convergenza delle esigenze informative per la gestione del rischio di credito in ottica regolamentare e di business: alcune ipotesi di arricchimento della centrale dei rischi in vista di Basilea 2*, [in:] *La Centrale dei Rischi nella gestione del credito: esperienze e prospettive*, BANCA D'ITALIA 2002.

*Associate Professor Maurizio Lanfranchi  
University of Messina (Italy)  
Department SEFISAST Faculty of Economics*

*Researcher Carlo Giannetto of Development of Sustainable  
University of Messina (Italy)  
Tourism Faculty of Economics*

## Summary

The profound changes that have affected agricultural systems worldwide in recent years have attracted the attention of policy makers to issues concerning the access to risk capital. The process of globalization and the substantial changes in the regulatory system created in the lending sector have created a profound change in the competitive profile of the financial sector, developing a network of financial intermediation able to adopt management models, as well as dynamic and flexible organiza-

tion orders. Simultaneous to these events, the regulatory framework governing agricultural credit has undergone profound changes, especially after the adoption of EU directives on the subject of Banking outlined in the Banking Act (TUB) in 1993 and the Basilea 2 Agreements, consisting of numerous implementation regulations of central banks, formally entering into force on January 1, 2007. With the Basilea 2 Agreement the effects in the agricultural sector have been and will be manifold: a depersonalization between banks and enterprises has taken place. The “banking relationship” can use a range of information so vast that it can greatly reduce the problem of asymmetric information and, consequently, creates conditions for more stable and profitable financing. In this context, the farmer needs to be more careful when giving information and get used to establishing an ongoing relationship with their banking partner. In fact, the farmer will be required to use more skill and accuracy in the preparation of investment plans (business plans, budgets, etc) to improve his credit rating. In addition, the new model of agricultural enterprise needs to treat its “image” with care and the use of credit must be proper. The banks, in order to avoid the problem of depersonalization will develop a relationship-oriented policy and will reinforce relationships of trust with customers; and for this reason they will have to adapt to regulatory changes and revise the way they operate and the way they provide guarantees.