

**Title**

Mutual and social efficiency of Italian co-operative banks: an empirical analysis

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## **Abstract**

According to the positivist theory of accounting, organizations use reporting systems to represent rationally management performance and, consequently, to improve levels of process efficiency and effectiveness, as well as overall performance (Nicholls, 2009; Palmer and Vinten, 1998). This study aims at better understanding the significance of this “positivist” representation of reality, contributing to a better informed assessment of the socio-economic impact of mutual organizations. We particularly analyze the efficiency of co-operative banks (CBs) from the points of view of the mutuality and sustainability of business.

CBs are small financial institutions providing financial services in various local geographical areas; they play a fundamental role in various banking systems in many countries worldwide (Battaglia et al., 2010) and are important for the stability of the overall financial system at regional level (Fonteyne, 2007; Hesse and Čihák, 2007).

Even though these small financial institutions present a homogeneous business model, their performance is strongly influenced by the economic conditions of their local markets and by the constraint to satisfy their customers, who are, at the same time, shareholders.

When measuring their efficiency one must account for the heterogeneity of social and mutual commitments in favor of their members and of the local community. In this sense, from an economic point of view, CBs are often less efficient than non-co-operative ones, but the reason for this apparently higher inefficiency is strictly correlated to their statutory commitments, that is, fostering responsible behavior by implementing democratic principles of governance and by focusing on retail banking (Stefancic, 2010).

In the light of the above, the purpose of this paper is to verify if a particular type of Italian CB called “Banche di Credito Cooperativo” (BCC) (Di Salvo and Lopez, 2010) is less or more competitive compared to non-co-operative ones by using and adapting two main financial indicators: the financial value added and the cost-income ratio (CIR).

The literature shows how the selection of performance indicators affects performance results and the evaluation of an organization’s performance (McNamara and Mong, 2005; Tange, 2003).

The characteristics of the customers and the peculiarities of the relationship between customers and local CBs make these intermediaries out of the ordinary, with respect to the overall financial system (Gutiérrez, 2008).

These differences can be identified not only in their better customer-monitoring capability, but also in their debt-recovery capacity: in fact, due to their close relationship with the local market and the area in which their borrowers work or live, they have higher strength in controlling debtors (Berger and Mester, 1997). For this reason we decided to adapt the already mentioned indices by taking into

account and incorporating in the process of their determination and calculation the statutory duties of the Italian co-operative banks in favor of their member-customers and their local community with particular reference to the constraint of mutuality.

The study was based on the following assumptions. Firstly, when banks pursue mutual goals, they will appear less efficient than non-co-operative institutions. Secondly, the usual system used by banks and financial institutions to evaluate the efficiency of credit institutions doesn't take into the account the mutual commitment of co-operative banks. Thirdly, mutual commitment is a social and economic value that should be safeguarded and enhanced by financial authorities and public actors. Based on these assumptions, we conducted an empirical analysis on a judgmental sample of Italian BCC particularly committed, because of an explicit statutory commitment, towards their members and the local community. Using a sample of 33 BCC 2009 financial statements, we estimated the levels of added value created and distributed to the main stakeholders and of CIR, making some corrections to these indicators according to the Italian Federation of Local CBs (Federcasse) sustainability reporting criteria and guidelines.

Main findings show that by implementing appropriate corrections to the value-added indicator and to the CIR, BCC appear efficient and mission-oriented, with a significantly reduced performance gap with non-co-operative credit institutions.

The practical implications of our results are that the simplistic and insufficiently reasoned application of efficiency indicators – such as added value and CIR – leads to unsatisfactory valuation of banks' performance (Favero and Papi, 1995).

In a certain sense, it could be said that efficiency levels of co-operative banks are too often evaluated, both at national and international levels, without considering their mutual nature. Furthermore, the socio-economic impact of CBs can be judged only by measuring the results obtained against the situation that would have occurred if bank services and activities had not been provided.

## 1.Introduction

Since the second part of the 19th century, co-operative banks (CBs) have been important actors of the European banking system. It is also highly probable that this is likely to remain the case in the 21st century, since most CBs seem healthy and are increasing their market shares. Nevertheless, their importance, the implications of their mutual nature, and their interaction with other types of financial institutions and banks have not been paid enough attention by policymakers and in the literature.

The main element that characterizes co-operative banks is their mutual nature. In this regard, the International Co-operative Alliance (1995) defines a co-operative as “an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise”. According to the ICA, the co-operatives are characterized by:

- free association and withdrawal of members, resulting in a variable co-operative capital base;
- non-transferability of membership, implying the absence of a market for member shares;
- democratic structure usually giving each member one vote regardless of his or her investment;
- restricted profit distribution that is not necessarily proportional to members' shareholdings;
- ownership rights are limited to the nominal co-operative capital represented by member shares (and therefore do not extend to the reserves and the total economic value of the co-operative);
- and the pursuit of specific member interests rather than profit maximization.

Several categories of co-operatives exist, depending on their purpose and the nature of their members (producer, consumer, or worker co-operatives) but CBs are usually consumer co-operatives since their members are also customers. As a result, the primary aim of CBs is to provide the best possible products and services that fit with the needs of their member-customers in a long-term relationship of trust.

CBs are also deeply rooted in the local economy and they have a widespread presence throughout the EU. With more than 65,000 outlets, the co-operative movement reaches even the remotest areas of Europe. This presence allows for a close and unique proximity relationship with customers.

According to the European Association of Co-operative Banks, CBs perform a strong role in EU economies and the banking sectors: in 2010 CBs were a driving force for socially committed business at local level, through their over 4,000 member banks, 65,000 branches, 750,000 employees, 50 million members, 176 million customers, 2,852 billion euro of deposits, 3,102 billion euro of loans and 5,524 billion euro of total assets (EACB, 2010a). The average market share of the sector is about 20% (weighted average of deposits). In some countries, the market share

lies well above this figure, as is the case in Austria, Germany, Finland, France, Italy and the Netherlands, ranging from 30% up to 50% (EACB, 2007).

CBs generally have a high level of capitalization, stable incomes from retail business and a diversified credit portfolio. Across Europe, they exceed the minimum legal capital ratio requirement of 8%, with an average ratio of about 9%. This is reflected in very good credit ratings, which range between AA- and AAA for the largest co-operative banking groups in Western Europe (Pestana Barros et al., 2010). CBs maintain a customer-oriented business model – including their ownership and governance structures – that benefits the EU, its banking system, its small and medium enterprises, its consumers and its economy, playing an important role in guaranteeing diversity and plurality in European banking. In fact, CBs' member-customers are fully involved in the decision-making process of the bank, since they control the co-operative and exert checks and balances at each level of the business, allowing organizations to minimize risk, identifying creditworthiness and promptly responding to customers' needs.

Even though these small financial institutions present a homogeneous business model, their performance is strongly influenced by the economic conditions of their local markets and by the constraint to satisfy their member-customers. The efficiency measurement of CBs has to account for the heterogeneity of social and mutual commitments in favor of their members and the local community. In this perspective, from an economic point of view, CBs are often less efficient than non-co-operative ones. The motivation of this apparently higher inefficiency is strictly linked to their statutory commitments, that is, fostering responsible behavior by implementing democratic principles of governance and by focusing on retail banking (Stefancic, 2010a).

In the light of the above, the purpose of this paper is to verify if a particular type of European CB, the Italian “Banche di Credito Cooperativo” (BCC) (Di Salvo and Lopez, 2010) are less or more competitive compared to non-co-operative ones, by using and adapting two main financial indicators: the financial value added and the cost-income ratio (CIR). We also aim to estimate socio-economic effectiveness and efficiency of a sample of BCC case studies by considering the special relation that these banks have with their territory. Cost efficiency is a fundamental goal for CBs, since wise cost management may guarantee the survival of the business and, consequently, the continuity of activities and services provided to members and customers. The Italian co-operative banking system was established towards the end of the 19th century, with the foundation of the first “Casse Rurali and Artigiane” banks among rural populations. They aimed to provide loans at advantageous conditions, basing their policy on very close attention to individuals while at the same time depending on the self-financing capacity of their members. Ever since, each BCC (the new denomination of “Cassa Rurali and Artigiane” after a legislative reform in the 1990s) has

maintained a close and profound relationship with its reference territory, interweaving its own history with that of the local community (Stefancic, 2010b).

In spite of profit maximization not being a primary goal for co-operatives, Italian CBs frequently achieve profits (EACB, 2010b): in 2010, the two main federations of Italian CBs (Federcasse for BCC and ANBP for Popular Banks) achieved, respectively, on average a 0.40% (Federcasse) and 0.80% (ANBP) return on assets (ROA) and a 3.6% (Federcasse) and 7.2% (ANBP) return on equity (ROE). In other European countries (e.g. Germany and the United Kingdom) the level of ROE in CBs is even higher than Italy since it is often over 10% (11.6 for Germany and 15.1 for the United Kingdom in 2010).

The Italian BCC constitute a particularly interesting case for our research aims, for two main reasons:

- according to the EACB and to Battaglia et al. (2010), Italian CBs have around 110,000 employees, 14 million customers, 2 billion members and one third of the market share of Italian banking deposits, playing a fundamental role in the Italian banking system. Furthermore, the Italian co-operative credit sector is the third largest in Europe (11% of the European co-operative banking sector), after France and Germany;
- Italy has a territory with different economic, social and demographic conditions in the diverse regions and CBs are strictly rooted in their local communities.

Since the connection with the local community represents an influential factor in evaluating BCC performance, we decided to analyze the particular regional context of Tuscany where this kind of relationship is historically and culturally consolidated.

In Tuscany BCC were created among rural communities to grant more favorable loans to local farmers and artisans, focusing on people and relying on their members' self-financing capability (Silipo, 2009). Since then, each BCC has kept strong and deep ties with its territory, interweaving its history with that of the local community.

In the light of the above premises, in the following sections we:

- analyze the existing literature on empirical studies estimating efficiency in CBs as well as on the role of reporting and performance indicators in evaluating overall performance by management;
- describe the case studies sample used for the empirical analysis carried out and the process of efficiency definition through the choice of opportune indicators;
- discuss the results obtained, present our conclusions and outline limitations of the present study and possible further research.

## 2. Literature review

The literature shows how the selection of performance indicators affects performance results and the evaluation of an organization's performance (McNamara and Mong, 2005; Tange, 2003).

This assertion can be interpreted in the light of the functions and effects of reporting in third sector organizations (including non-profit and co-operative ones) according to positivist and critical theories of accounting (Palmer and Vinten, 1998).

Under the positivist theory of accounting reporting, data contained in the report is able to correctly describe the real organizational performance (Whittington, 1986), while under the critical theory of accounting, even if the real situation is not totally represented, accounts and reports carry out a fundamental function of internal control and, from an organizational point-of-view, are powerful operating mechanisms (Chua, 1986, Power et al., 1996, Lukes, 1974).

As far as the positivist theory is concerned, organizations use reporting systems to represent rationally management performance and, consequently, to improve levels of process efficiency and effectiveness, as well as overall performance (Nicholls et al., 2006). It follows that, if the tool used does not result in a true and fair view of the situation to be described, then its use might lead to wrong or counterproductive behavior.

Under the critical approach, modifications in the type and ways of using resources (input) can result in increased demand for impact evaluation tools. Consider, for example, the growing recourse to fund-raising by third sector organizations, where the lender requests a detailed financial report that clearly shows not only the use made of resources given, but also the impact generated by programs and activities (Anheier et al., 2006; Bernholz, 2004; Bishop et al., 2008). It is primarily the new models of "venture philanthropy" (financial support of NPO and co-operative start-ups) that want increased attention towards evaluating the impact generated, as well as to certain management systems to be used in the organization funded (John, 2006). Moreover, again with the critical approach, scarcity of financial resources has encouraged NPOs and co-operatives to carry out an increasingly large volume of their activities in return for reciprocal services, stimulating the growth of different forms of social enterprises (Boschee, 1995; Boschee et al., 2003). Over time this phenomenon has created an ever-greater demand for social and economic tools for blended accounting and reporting and "contamination" from typically corporate models is also accepted (Nicholls, 2009, p. 756). In other words, the proponents of the critical perspective look into the relationship between the organization and the social, economic and historical context, using other social sciences such as sociology, history, political science, anthropology and others.

The above premises indicate that evaluation of the efficiency of BCC and, more generally, of CBs should be based on integrative techniques of the traditional accounting and reporting indicators

using the two accounting approaches previously mentioned (Nicholls, 2009). In fact, the characteristics of the customers and the peculiarities of the relationship between customers and local CBs make these intermediaries out of the ordinary with respect to the overall financial system (Gutiérrez, 2008).

More comprehensive indicators of efficiency that focus more strongly on quantification of mutual and territorial impact generated are held to be coherent with both the positivist and critical approaches. This thesis is confirmed by the lack of the traditional financial indicators in measuring the effective results obtained by mutual entities to the benefit of their main stakeholders. Although working from a theoretically positivist viewpoint (the possibility of measuring generated impact), these models tend to concentrate attention on integrating the traditional financial indicators in order to strengthen the strategic and organizational control levers that can be activated to improve effectiveness and efficiency (critical theory).

Furthermore, a specific characteristic of CBs – and particularly of BCC – is their commitment to corporate social responsibility (CSR) to the benefit of local communities (EACB, 2010c). In this direction CBs emphasize the common good of society and foster self-help, responsibility and solidarity. They were historically founded to improve access to finance for their members who would have had otherwise limited access to finance at reasonable conditions. As a result of this philosophy, CBs participate in a range of schemes, such as microfinance and financial education of groups like the long-time unemployed. They also have a long tradition of fostering the development of their local communities through cultural sponsorship initiatives, responsible citizenship and foundation activities. CBs are also among the market leaders for socially and environmentally responsible investment products such as funds and savings accounts. Green finance is increasingly gaining importance and a variety of investment solutions allow the customers of co-operative banks to contribute to the preservation of the environment.

We believe it is possible to take into the account the BCC orientation to CSR and to the local community verifying whether BCC are less or more competitive compared to non-co-operative ones, by using and adapting the two previously mentioned indicators (the financial value added and the CIR). Thanks to these integrations and corrections, in a positivist approach to accounting and reporting practices, BCC performance appears closer to the reality, that is efficient and mission-oriented, significantly reducing the gap with non-co-operative credit institutions.

These integrations are even more necessary if we consider that there is empirical evidence (Battistin et al., 2012) that in Italy territorial connections between managers and local banks negatively affect the performance of the latter and especially of mutual, co-operative and rural banks. According to Battistin et al. (2012), these results are inconsistent with the hypothesis that territorial connections



boost bank performance because of better local knowledge. The authors hold that territorial connections in CBs display their negative impact on performance in two ways: through inferior skills, since the person owes his/her position also to the fact that he/she is local; and by protecting the managers after poor performance, thus offering connected managers the perks of longer tenure and lower turnover, and higher survival probability, hence potentially hurting also future bank performance. Nevertheless we believe that the performance measurement practices are affected by non-consideration of CBs' mutual commitments.

The differences between CBs – and especially BCC – and other banks could be identified not only in their better customer-monitoring capability, but also in their debt-recovery capacity: in fact, due to their close relationship with the local market and the area in which their borrowers work or live, they have more strength in controlling debtors (Berger and Mester, 1997).

For this reason we decided to adapt the already mentioned indices by taking into account and incorporating in the process of their determination and calculation the statutory duties of the Italian BCC in favor of their member-customers and their local community with particular reference to the constraint of mutuality.

### **3. Methodology**

The study was based on the following assumptions. Firstly, when banks pursue mutual goals, they will appear less efficient than the non-co-operative institutions. Secondly, the usual system used by banks and financial institutions to evaluate the efficiency of credit institutions doesn't take into the account the mutual commitment of CBs. Thirdly, mutual commitment is a social and economic value that should be safeguarded and enhanced by financial authorities and public actors.

Based on these assumptions, we conducted an empirical analysis on a judgmental sample of BCC particularly committed, because of an explicit statutory commitment, towards their members and local community. By using a sample of Tuscan case studies (33 BCC 2009 financial statements), we estimated the change in the levels of value added created and distributed to the main stakeholders and in the CIR making some corrections to these indicators according to the Italian Federation of BCC (Federcasse) sustainability reporting criteria and guidelines.

In this study we adopt a multiple case study research approach as a method for answering the exploratory research question whether a simplistic and insufficiently reasoned application of efficiency indicators – such as value added and CIR – leads to unsatisfactory valuation of banks' performance (Favero and Papi, 1995). This is because we strongly believe that efficiency levels of CBs are too often evaluated, both at national and international levels, without considering their

mutual nature. Furthermore, the socio-economic impact of CBs can be judged only by measuring the results obtained against the situation that would have occurred if bank services and activities had not been provided.

Case study research has been defined as “research situations where the number of variables of interests far outstrips the number of data points” (Yin, 1994, p. 13) or as “a research strategy which focuses on understanding the dynamics present within single settings” (Eisenhardt, 1989, p. 534). While case studies may use quantitative data, a key difference with other research methods is that case studies seek to study phenomena in their contexts, rather than independent of context (e.g., Pettigrew, 1973; Gibbert et al., 2008).

In this study we utilize data collection methods with particular reference to archival analysis (33 BCC financial statements analyzed), direct contacts (with 33 BCC) and participant observations (with Federcasse delegates). According to Eisenhardt (1989), our “case studies” approach incorporates both quantitative and qualitative data and begins as close as possible to the ideal of no preconceived theories to be tested. However we determined the research question and some variables prior to commencing the research (Siggelkow, 2007). Then we selected the population and chose the 33 Tuscan cases to show “extreme situations and polar types in which the process of interest is transparently observable” (Eisenhardt, 1989, p. 537).

We decided upon multiple data collection methods according to the next step of Eisenhardt's process (1989) with particular reference to the above-mentioned archival analysis (financial statements), interviews and participant observations. Multiple methods, in fact, facilitate triangulation of the data and therefore contribute to strengthened hypotheses and constructs (Yin, 2009).

Upon completion of data collection, data analysis began at within-case analysis level so that the research team was able to gain a deep familiarity with each case (Eisenhardt, 1989, Yin, 2009).

In this sense, the contribution provided by our study with respect to the existing literature is manifold. First, it is one of the few studies dealing with the connection between efficiency and accounting and reporting practices in CBs. More specifically, we aim at verifying whether CBs are less or more competitive compared to non-co-operative ones, by using and adapting two main financial indicators: financial value added and the CIR.

We believe there is a lack in the literature on this subject and also the number of studies in the field of efficiency measurement in CBs is still small (e.g. Worthington, 1998; Frame and Coelli, 2001; Williams and Gardener, 2003; Glass and McKillop, 2006; Battaglia et al., 2010). Furthermore, studies dealing with CBs' efficiency usually estimate a common frontier without accounting for

country regional differences (e.g. Altunbas et al., 2001, 2003; Hasan and Lozano-Vivas, 2002; Maudos et al., 2002; Girardone et al., 2004, 2009; Weill, 2004).

Second, our study focuses on a specific region of Italy (i.e. a very useful laboratory setting for analyzing the impact of mutual and territorial commitment by BCC) and considers a wide-ranging set of context variables (e.g. financial returns to the benefit of member-customers, donations to the local community, financial support to the local economy and to the mutual and co-operative regional and national system in intergenerational perspective). Our study also takes into account the performance gap with non-co-operative credit institutions and attempts to estimate its real consistency in the light of the particular mission of BCC.

Third, we demonstrate that simplistic and insufficiently reasoned application of efficiency indicators in co-operative sector – such as value added and CIR – leads to unsatisfactory valuation of banks' performance (Favero and Papi, 1995).

The study was conducted using the BCC financial statements available in the Tuscan Federation (FTBCC) database and asking the single banks for more detailed information about specific cost and income data related to members and local communities.

In particular, we collected 33 financial statements for the years 2009 and 2010, that is, all the banks members of the Tuscan Federation, and received more detailed information from 20 banks for 2009 and from 24 banks for 2010.

Given the parameters of the sample, the analysis was carried out adopting two financial indicators: value added and CIR.

#### **4. The value added statement**

The value added statement uses information from financial accounts to calculate the value added by an organization through transformation of externally purchased goods and services (Burchell et al., 1985). It looks beyond income to encompass ownership and includes the wealth created for a wider group of stakeholders (Mook et al., 2003) by transforming the traditional income equation:

$$\text{Revenues} - \text{Expenses} = \text{Income}$$

into the following:

$$\text{Revenues} - \text{External Expenses} = \text{Income} + \text{Internal Expenses} = \text{Value Added}$$

The point is to decide where to fix the boundaries of internal and external expenses, and there are several possible approaches (Bagnoli and Megali, 2011) corresponding to different definitions of internal and external resources, also considering international co-operative principles (International Co-operative Alliance, 1995).

Applying the value added statement to BCC, the records required and tracked in the income statement have been reclassified introducing the traditional social key reading focused on economic and social value added.

Furthermore, and as a new and not ordinarily recorded feature, we calculated the advantage for member-customers, as stated by Federcasse, that is, the economic advantages obtained by the members as customers, considering lower interest expenses and higher interest income against non-member-customers.

In order to describe and quantify the latter kind of benefit, we compared the different BCC customer interest rates between members and non-members. Then we applied the difference due to the non-members higher interest income rate to the member loans and the difference due to the lower non-members interest expenses to the member deposits. We then calculated the member advantage. That is an advantage not disclosed in the ordinary financial statements.

The following statement expounds the consolidated financial statements of the 33 Tuscan BCC from a value added point of view for the years 2009 and 2010. The member economic advantage, as above explained, has been added, in order to quantify the actual value added by a co-operative organization.

	2010	2009
Total revenues	588,862,645	687,435,519
External costs	-368,987,001	-450,733,166
Member-customer advantage	306,277,000	153,773,000
<b>Value added</b>	<b>526,152,644</b>	<b>390,475,353</b>

**Table 1. Quantification of the value added 2009-10 in the 33 Tuscan BCC**

The value added has been distributed as follows:

	2010	2009
Amortization	16,755,505	16,530,925
Staff	171,946,711	164,827,668
Member-customer advantage	306,277,000	153,773,000
Taxation	14,788,279	17,368,606
Profit	16,385,149	37,975,154
<b>Value distributed</b>	<b>526,152,644</b>	<b>390,475,353</b>

**Table 2. Distribution of the valued added 2009-10 in the 33 Tuscan BCC**

The BCC affiliated to the Tuscan Federation obtained a value added of more than 390 millions of euro in 2009 and more than 526 millions in 2010.

Profit has been paid out and or retained as follows:

<b>Profit allocation</b>	2010	2009
Legal reserve (retained earnings)	19,895,798	41,619,528

Co-operative funds	861,930	1,515,350
Dividend payout	1,867,639	2,301,887
Stock revaluation (free)	108,349	231,196
Charity and mutuality	2,428,857	4,743,482
Profits distributed in proportion to members transactions	235,000	100,000
Losses	-9,012,424	-12,536,289
	<u>16,385,149</u>	<u>37.975.154</u>

**Table 3. 2009-10 profit allocation in the 33 Tuscan BCC**

By splitting value added looking at its final destination, it has been distributed to the following main stakeholders:

- the strengthening of the single bank system, that is amortization and retained earnings;
- the members (dividends, stock revaluation, sums distributed in proportion to members transactions with the bank, member-customer advantage);
- the staff;
- the community (taxation, charity);
- to the co-operative system (3% of the yearly profit to co-operative funds).

<b>Value distributed (with split profit)</b>	2010	2009
System strengthening (amortizations, retained earning, net of losses)	27,638,879	45,614,164
Members	308,487,988	156,406,083
Staff	171,946,711	164,827,668
Community	17,217,136	22,112,088
Co-operative system	861,930	1,515,350
	<u>526,152,644</u>	<u>390,475,353</u>

**Table 4. Distribution to main stakeholders of the valued added 2009-10 in the 33 Tuscan BCC**

## 5. The amended Cost-Income Ratio

The CIR - operating costs divided by operating income - is a key bank efficiency measure which is useful to evaluate how costs are changing compared to income (Burger and Moormann, 2008).

When related to CBs this indicator shows some limitations with regard of its capacity to measure real performances. These banks, as said, are characterized by a strong originality, looking at the democratic principle (one person one vote), mutuality and presence on local territories and remote areas (Each, 2010c)

These characteristics call for amending the traditional Cir by recording the higher operating expenses and the less revenues achieved while pursuing their mission. To reach a reasonable degree of objectivity and according to our BCC contacts, in this research only the expenses have been analyzed, mostly because hypothetic higher revenues are difficult to estimate.

In particular, the above adjustments concern two areas: Members and Communities.

a) members

We calculated the difference between the CIR and its value if there were no members.

Considering the operating costs (OP), we decided to amend:

- costs sustained for non-banking members services (NBS)
- costs sustained for member information, participation and co-operative identity (IPC)
- staff cost for member initiatives (SC)

In formulae:

$$\text{MEMBER AMENDED CIR (MCIR)} = (\text{OP} - \text{NBS} - \text{IPC} - \text{SC}) / \text{OPERATING INCOME}$$

b) Communities

we calculated the difference between the CIR and its value if there were no community commitment.

Considering the operating costs (OP), we decided to amend costs sustained for sponsorship (SP), territory (T) and the dedicated staff (SC).

In formulae:

$$\text{COMMUNITY AMENDED CIR (MCIR)} = (\text{OP} - \text{SP} - \text{T} - \text{SC}) / \text{OPERATING INCOME}$$

Moreover, we decided to calculate a global amended CIR, that is a ratio which includes both the member and the community adjustments.

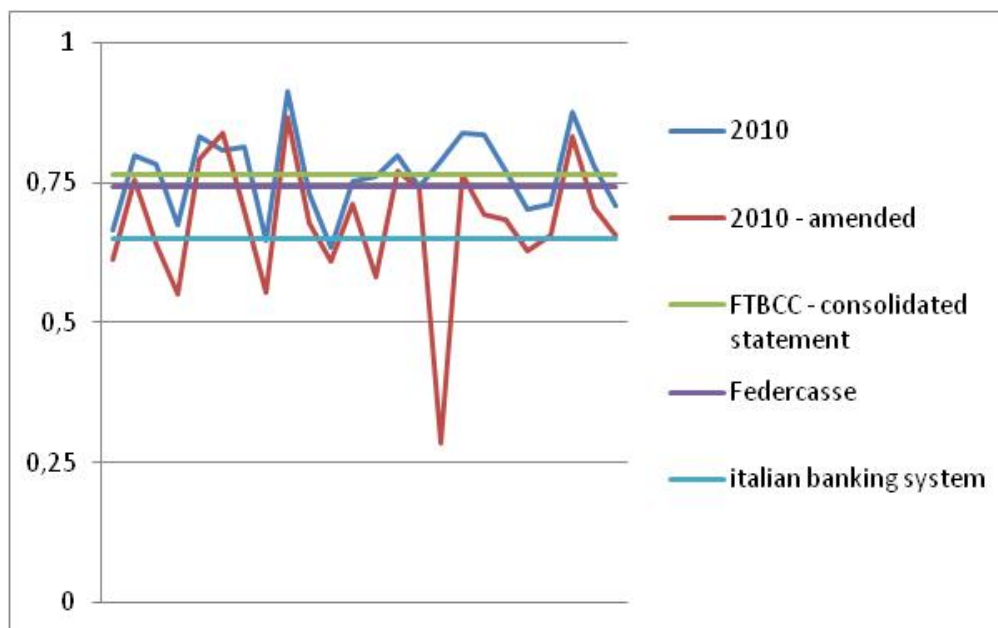
In formulae:

$$\text{GLOBAL AMENDED CIR (MCIR)} = (\text{OP} - \text{NBS} - \text{IPC} - \text{SP} - \text{T} - \text{SC}) / \text{OPERATING INCOME}$$

The following statements show the CIR and the amended Member and Community CIR of the 24 (year 2010) and 20 (year 2009) (out of 33) Tuscan BCC who decided to collaborate to the research project.

BCC - year 2010	CIR	Member CIR	Community CIR	Global amended CIR	Difference
Anghiari e Stia	66.45%	64.97%	63.97%	61.41%	5.04%
Area Pratese	79.73%	78.30%	77.50%	75.69%	4.04%
Chianti Fiorentino	78.33%	75.05%	68.97%	63.98%	14.35%
Costa d'Argento Capalbio	67.55%	61.00%	64.28%	55.16%	12.39%

Cras - Chianciano Terme					
Sovic. - Costa Etrusca	83.32%	81.13%	81.43%	79.24%	4.08%
Impruneta	80.85%	86.01%	78.86%	84.02%	-3.17%
Maremma	81.56%	76.99%	76.12%	69.97%	11.59%
Masiano	64.77%	59.89%	62.48%	55.41%	9.36%
Montagna Pistoiese	91.35%	89.70%	90.69%	86.76%	4.59%
Montepulciano	73.17%	71.26%	71.09%	67.79%	5.38%
Mugello	63.56%	63.23%	61.45%	61.12%	2.44%
Pescia	75.33%	73.91%	72.69%	71.27%	4.06%
Pistoia	76.09%	74.85%	75.38%	58.16%	17.92%
Pitigliano	80.02%	78.63%	78.46%	77.08%	2.94%
Pontassieve	74.31%	74.14%	74.31%	74.13%	0.18%
Saturnia	78.87%	47.13%	78.35%	28.36%	50.52%
Signa	83.77%	79.00%	83.00%	76.39%	7.38%
Valdarno	83.47%	76.40%	82.15%	69.22%	14.25%
Valdarno Fiorentino Banca di					
Cascia	76.96%	74.33%	73.05%	68.32%	8.64%
Valdichiana	70.21%	66.00%	67.00%	62.79%	7.41%
Valdinievole	71.14%	68.50%	70.14%	65.60%	5.54%
Versilia - Lunigiana -					
Garfagnana	87.47%	86.93%	83.85%	83.31%	4.15%
Vibanca	78.03%	73.57%	76.60%	70.49%	7.55%
Vignole	71.02%	67.86%	69.93%	65.50%	5.52%
<hr/>					
FTBCC - consolidated					
statement			76.39%		
Federcasse			74.20%		
Italian banking system			64.90%		
<hr/>					

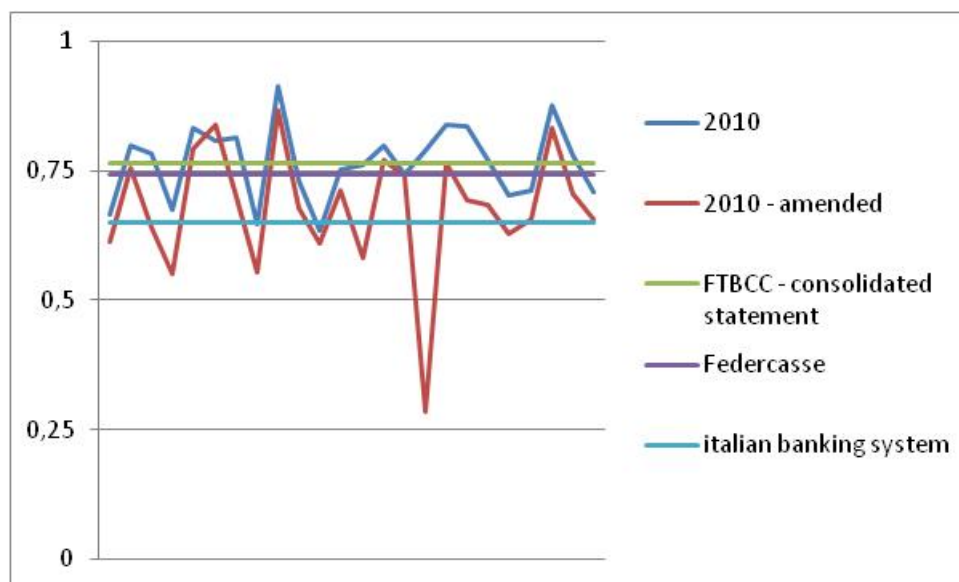


Tables 5. CIR and the amended Member and Community CIR of the 24 (year 2010) (out of 33) Tuscan BCC.

BCC - year 2009	CIR	Member CIR	Community CIR	Global amended CIR	Difference
Anghiari e Stia	61.59%	58.84%	60.02%	57.33%	4.26%
Area Pratese	55.46%	54.64%	53.86%	53.04%	2.42%
Chianti Fiorentino	63.30%	58.69%	57.72%	53.29%	10.00%
Costa d'Argento Capalbio	68.56%	64.96%	66.32%	62.80%	5.75%
Credito Cooperativo Fiorentino	67.25%	57.28%	66.12%	56.19%	11.06%
Crediumbria	61.31%	59.87%	58.25%	56.82%	4.49%
Impruneta	67.57%	67.40%	64.85%	64.67%	2.90%
Maremma	62.96%	59.87%	58.79%	55.74%	7.22%
Montagna Pistoiese	89.85%	88.60%	89.05%	87.81%	2.04%
Montepulciano	70.51%	70.51%	70.51%	70.51%	0.00%
Mugello	63.48%	63.18%	61.81%	61.51%	1.97%
Pescia	69.64%	46.85%	68.27%	45.91%	23.73%
Pistoia	77.20%	77.18%	77.20%	77.18%	0.02%
Pitigliano	77.34%	75.88%	75.18%	73.73%	3.60%
San Pietro in Vincio Vibanca	72.57%	69.18%	71.22%	67.88%	4.70%
Saturnia	73.85%	48.71%	72.50%	47.78%	26.07%
Signa	82.32%	79.84%	81.50%	79.02%	3.30%
Valdarno	68.62%	67.31%	67.55%	66.24%	2.39%
Valdarno Fiorentino Banca di Cascia	74.25%	59.37%	69.30%	54.87%	19.38%



Vignole	70.42%	66.74%	69.25%	65.61%	4.81%
<hr/>					
FTBCC - consolidated statement			69.50%		
Federcasse			70.20%		
Italian banking system			63.10%		
<hr/>					



Tables 6. CIR and the amended Member and Community CIR of the 20 (year 2009) (out of 33) Tuscan BCC.

As shown, the BCC's common CIR - looking at the single banks, at the Tuscan (FTBCC) or at the national (Federcasse) consolidated statements - has worse ratios than the global Italian banking system. As regards our research question, this is due not only to bank inefficiencies - small size, cooperative governance - but also, and sometimes mainly, to mission related expenses which traditional banks don't support. Pointing out the amended CIR chart, performance of the analyzed CB improves, getting close to the average Italian banking system CIR.

## 6. Conclusions

The aim of the present study was to verify whether CBs are lesser or higher competitive compared to non-co-operatives ones by using and adapting two main financial indicators: the financial value added and the CIR.

In the light of the results above, we can affirm that BCC undoubtedly have lower levels of efficiency compared with traditional banks. However, this gap is much reduced if we modify the calculation of indicators analyzed to take properly into account the mutual aims of the former.

Our analysis demonstrates that value added, for co-operative banks, must necessarily be reconsidered from a social point-of-view, again, to take into account the mutual aims.

Our reasoning was to add to the financial results the value of the member-customer, in order to better define the amount of wealth effectively distributed to the various beneficiaries.

For this reason, the higher income (from investments and deposits) or the lower costs (for loans) of the member-customer, with respect to the non-member customer, have been counted as internal, not external costs.

Our research showed that 153.7 million euro in 2009 and no less than 306.2 million euro in 2010 were invested by BCC in Tuscany in favor of their member-customers.

This information, had the accounting parameter of value added not been reconsidered, would not have emerged from a normal banking sector financial analysis.

With respect to total income of the BCC analyzed of 687 million euro in 2009 and 589 million euro in 2010, 390 million in 2009 (57%) and 526 million in 2010 (89%) represent the value distributed to the co-operative system in a wider sense. That is to say, this included BCC self-financing, payouts to members, staff and collaborators, philanthropic contributions to local communities and re-investment of resources to strengthen the co-operative system in favor of future generations.

As far as the CIR is concerned, our reconsideration of accounts brought to light even more interesting data.

The median values of the spread between CIR and global-amended CIR in 2010, for the 24 BCC considered, was 5.5 percentage points for 2010 and 4.4 percentage points for 2009.

Even more indicative are arithmetic means of the global-amended CIR of the Tuscan BCC – 64.9% in 2010 and 62.9% in 2009. These are very close to those of the entire Italian banking sector ( 67.9% in 2010 and 63.10% in 2009), with near-negligible differences of 3 percentage points in 2010 and only 0.2 percentage points in 2009.

In this sense, results show that our re-elaboration of the value added and CIR indicators brings the BCC closer to the national banking average.

It should also be remembered that, as previously explained, it was not possible to rectify values of revenues within the CIR indicator.

Had this been done, it is highly likely that the differences between BCC and the Italian banking sector overall would have effectively vanished.

It is important, therefore, to measure performance achieved using instruments that are coherent with the mutualist nature of the BCC, adapting the normal banking financial analysis instruments to this case.

The corrections made to traditional value added and CIR indicators allowed us to better appreciate the reality of co-operative credit, which appears more efficient and more mission-oriented than in the literature thus far, significantly reducing the performance gap with non-co-operatives credit institutions.

In actual fact, the presumed inefficiency of CBs as measured using traditional instruments derives, at least partly, from their need to maintain their mutual and social mission.

This has interesting repercussions on accounting disciplines, since it questions the doctrine and the practice on the need to adapt financial analysis instruments – better than has been done so far – to the special mission of CBs.

In this context, possible developments of the present study would be extension of the sample analyzed in order to generalize the results of this preliminary investigation and, above all, analysis of the socio-economic impact generated by the single BCC on their territories, in order to measure results effectively obtained with respect to the initial situation.

## References

- Altunbas, Y., Carbo, S., Gardener E.P., M., & Molyneux, P. (2003). Ownership and performance in European and US banking - a comparison of commercial, co-operative and savings banks. *Mimeo*.
- Altunbas, Y., Evans, L., & Molyneux, P. (2001). Bank ownership and efficiency. *Journal of Money, Credit and Banking*, 33(4), 926-954.
- Anheier, H. and Leat, D. (2006), *Creative philanthropy*. (London: Routledge).
- Bagnoli L., Megali C., (2011), Measuring performances in social enterprises, «Nonprofit & Voluntary sector quarterly», 40(1), 149 – 165
- Battaglia, F., Farina, V., Fiordelisi, F., & Ricci, O. (2010). The efficiency of co-operative banks: The impact of environmental economic conditions. *Applied Financial Economics*, 20(17), 1363-1376.
- Battistin, E., Graziano, C., & Parigi, B. M. (2012). Connections and performance in bankers' turnover. *European Economic Review*, 56(3), 470-487.
- Berger, A. N., & Mester, L. J. (1997). Inside the black box: What explains differences in the efficiencies of financial institutions?, *Journal of Banking and Finance*, 21(7), 895-947.
- Bernholz, L. (2004), *Creating philanthropic capital markets*. (Hoboken: John Wiley).
- Bishop, M. and Green, M. (2008), *Philanthrocapitalism: How the rich can save the world and why we should let them*. (London: A and C Black).
- Boschee J. (1995), 'Social entrepreneurship', *Across the Board*, 32(3), pp. 20-25.
- Boschee J., McClurg D. (2003). *Toward a better understanding of social entrepreneurship: some important distinctions*. (Minnesota: Institute for Social Entrepreneurs).
- Burchell S., Clubb C., Hopwood A.G. (1985). Accounting in its social context: towards a history of value added in the U.K. *Accounting, Organizations and Society*, 10 (4), 381-413.
- Burger A., Moormann J., Productivity in banks: myths & truths of the Cost Income Ratio, Banks and Bank System, Vol. 3, Issue 4, 2008
- Chua, W. (1986), 'Radical developments in accounting thought', *The Accounting Review*, 61(4), pp. 601-632.
- Di Salvo, R. & Lopez, J.S. (2010). The Co-operative Credit System in Italy, in Boscia V., Carretta A., Schwizer P. (eds), *Co-operative Banking in Europe: Case Studies*, Palgrave Macmillan, 148-162.
- Eisenhardt KM. 1989. Building theories from case study research. *Academy of Management Review* 14(4): 532–550.

European Association of Co-operative Banks (2007), Co-operative Banks: Catalysts for economic and social cohesion in Europe, EACB: Brussels.

European Association of Co-operative Banks (2010a), Annual Report, EACB: Brussels.

European Association of Co-operative Banks (2010b), European Co-operative banks in the financial and economic turmoil. First assessment, EACB: Brussels.

European Association of Co-operative Banks (2010c), CSR Report. Corporate Social Responsibility in Co-operative Banks, EACB: Brussels.

Favero, C. A., & Papi, L. (1995). Technical efficiency and scale efficiency in the Italian banking sector: A non-parametric approach. *Applied Economics*, 27(4), 385-395

Fonteyne, W. (2007). Co-operative Banks in Europe. Policy Issues, *IMF Working Paper* n. 159.

Frame, W. S., & Coelli, T. J. (2001). U.S. financial services consolidation: The case of corporate credit unions. *Review of Industrial Organization*, 18(2), 229-242.

Gibbert, M., Ruigrok, W., & Wicki, B. (2008). What passes as a rigorous case study? *Strategic Management Journal*, 29(13), 1465-1474.

Girardone, C., Molyneux, P., & Gardener, E. P. M. (2004). Analyzing the determinants of bank efficiency: The case of Italian banks. *Applied Economics*, 36(3), 215-227.

Girardone, C., Nankervis, J. C., & Velentza, E. (2009). Efficiency, ownership and financial structure in European banking. *Managerial Finance*, 35, 227-245.

Glass, J. C., & McKillop, D. G. (2006). The impact of differing operating environments on US credit union performance, 1993-2001. *Applied Financial Economics*, 16(17), 1285-1300.

Gutiérrez E. (2008), The Reform of Italian Co-operative Banks: Discussion of Proposals, *IMF Working Paper* n. 74.

Hasan, I., & Lozano-Vivas, A. (2002). Organizational form and expense preference: Spanish experience. *Bulletin of Economic Research*, 54(2), 135-150.

Hesse, H. & Čihák, M. (2007). Co-operative Banks and Financial Stability, *IMF Working Paper* n. 2.

International Co-operative Alliance (1995). Statement on the co-operative identity: co-operative principles for the 21st century, available at [www.ica.coop/coop/principles.html](http://www.ica.coop/coop/principles.html).

International Co-operative Alliance (1995). The International Co-operative Alliance Statement on Co-operative Identity. *Review of International Co-operation* 88, 3: 3-4.

- John R. (2006), *Venture philanthropy: The evolution of high engagement philanthropy in Europe*. (Oxford: Skoll Centre for Social Entrepreneurship).
- Lukes, S. (1974), *Power: A radical view*. (London: MacMillan).
- Maudos, J., Pastor, J. M., Pérez, F., & Quesada, J. (2002). Cost and profit efficiency in European banks. *Journal of International Financial Markets, Institutions and Money*, 12(1), 33-58.
- McNamara, C., & Mong, S. (2005). Performance measurement and management: Some insights from practice. *Australian Accounting Review*, 15(1), 15-29.
- Mook L., Richmond B.J., Quarter J. (2003). Integrated Social Accounting for Nonprofits: A Case From Canada. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, 14 (3), 283-297.
- Nicholls, A. (2009). We do good things, don't we?: 'Blended Value Accounting' in social entrepreneurship, *Accounting, Organizations and Society*, 34(6-7), 755-769.
- Nicholls, A., Cho, A. (2006), 'Social entrepreneurship: The structuration of a field', in A. Nicholls (Eds), *Social entrepreneurship: New paradigms of sustainable social change*, pp. 99-118. (Oxford: Oxford University Press).
- Palmer, P. & Vinten, G. (1998). Accounting, auditing and regulating charities. Towards a theoretical underpinning, *Managerial Auditing Journal*, 13(6), 346-355.
- Pestana Barros C., Nicolas Peypoch N. and Williams J. (2010), A note on productivity change in European co-operative banks: the Luenberger indicator approach, *International Review of Applied Economics*, Vol. 24, No. 2, March 2010, 137-147.
- Pettigrew A. 1973. *The Politics of Organizational Decision Making*. Tavistock: London, UK
- Power, M. and Laughlin, R. (1996), 'Habermas, law and accounting', *Accounting, Organizations and Society*, 21(5), pp. 441-465.
- Siggelkow N. (2007), Persuasion with case studies, *Academy of Management Journal*, Vol. 50, No. 1, 20-24.
- Silipo D.B. (2009), *The Banks and the Italian Economy*, Springer Physica Verlag: Heidelberg.
- Stefancic M. (2010b), Competitive Advantages and Challenges in the Italian Co-operative Credit System, *Studi Economici*, 102, p. 89-106.
- Stefancic, M. (2010a), Co-operative Credit Network: Advantages And Challenges In Italian Co-operative Credit Banks, *Euricse Working Papers*, N.016|11

- Tange, S. (2003). An overview of frequently use performance measures. *Work Study*, 52(7), 350-62.
- Weill, L. (2004). Measuring cost efficiency in European banking: A comparison of frontier techniques. *Journal of Productivity Analysis*, 21(2), 133-152.
- Whittington, G. (1986), 'Financial accounting theory: An over-view', *The British Accounting Review*, 18(1), pp. 4-41.
- Williams, J., & Gardener, E. P. M. (2003). The efficiency of European regional banking. [L'efficacité des opérations bancaires régionales européennes] *Regional Studies*, 37(4), 321-330.
- Worthington, A. C. (1998). Efficiency in Australian building societies: An econometric cost function approach using panel data. *Applied Financial Economics*, 8(5), 459-467.
- Yin R.K. (2009), *Case Study Research: Design and Methods*. Fourth Edition, Sage Publications: Thousand Oaks, CA.
- Yin R.K. 1994. *Case Study Research: Design and Methods*. Sage: London, UK.