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Investigating Management Turnover in Italian Cooperative Banks

ABSTRACT

Management turnover is a common tool for disciplining top managers both in corporations and in financial intermediaries. This paper examines the turnover of top managers in Italian banks. By applying a survival analysis to a dataset covering all Italian banks, the study tests the hypothesis that management turnover differs according to different types of banks; and, specifically, it attempts to assess whether top managers in non-commercial banks are more likely to stay on in their managerial position longer than those in commercial banks. Results confirm that the juridical form of banks is significantly related to management turnover as top managers in cooperative banks show a higher survival probability. Similarly, banks' history and institutional legacy have a significant influence on both management turnover and on the disciplinary mechanisms for top managers. Managers in cooperative banks tend to survive longer even when bank performance, measured as return on assets, is below average.

KEY-WORDS

ITALIAN COOPERATIVE BANKS; JURIDICAL FORM OF BANKS; TURNOVER OF TOP MANAGERS;
CORPORATE GOVERNANCE; INSTITUTIONAL SETTINGS**Acknowledgements**

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1. Introduction

Management turnover is a common tool for disciplining top managers both in corporations and in financial intermediaries. Top managers are subject to pressures to act in the interest of shareholders and stakeholders more broadly. Often, however, disciplinary forces do not appear to be entirely effective, and managers are frequently in a position to counter said disciplinary forces – for instance by entrenching themselves and making themselves costly to replace. In order to shed light on these issues, it is crucial to investigate whether top management turnover as a disciplinary mechanism differs in different types of corporations. The present study investigates how management turnover differs in Italian banks by means of a survival analysis. Although there may be various factors and issues that affect management turnover, the focus here is on external pressure and, thus, on the disciplining mechanisms applied to top managers.

Addressing such issues is important as the quality of management is essential for an effective governance of banks. By contrast, in a highly competitive market, poor management often results in poor bank performance and inadequate risk management. In order to prevent this, the owners (board of directors on behalf of the owners) have the right to replace the managers of the bank when performing poorly. The question is, however, whether the owners have the necessary information and incentives to act against existing management, and to what extent they are able to impose such actions in practice. In fact, it can be safely assumed that managers do not like outside interference on their management (such issues are investigated, for instance, in Fama and Jensen, 1983; and in Dewatripont and Tirole, 1992).

A number of developments resulting from the process of organizational restructuring in Italian banking have in part blurred the differences among different types of banks (Zazzaro, 2004; Bonaccorsi di Patti *et al.*, 2005; Ayadi *et al.*, 2010; Gallo *et al.*, 2011). Nonetheless, differences in the governance of banks persist. Differences in the ownership structure and types of owners are among the most important differences between commercial and cooperative banks. In commercial banks, the owners invest with an aim to obtain the required return on their investments, and have a number of mechanisms through which they can push the bank managers to achieve such a goal. For example, they can strengthen their control over the management by increasing their ownership share and, thus, gain control on the board. By contrast, the owners of cooperative banks are cooperative members and bank customers. They are less interested in the bottom line of such banks and exert a lower pressure over the bank managers. Formally, they cannot increase their power as each of the owners only holds one vote, regardless of his/her stake in the bank. The core hypothesis is therefore that management turnover differs according to different types of banks. Precisely, I assume that Italian non-commercial banks, for instance cooperative banks, are less exposed to external pressure by the cooperative members and stakeholders.

A number of scholars have focused on management turnover both in banks operating in the Italian market and in those operating in other European markets and internationally (see for instance Crespi *et al.*, 2004; Čihák *et al.*, 2009). The paper that initially most influenced the design of the present study is a working paper by Battistin *et al.* (2006)¹. The authors show that local managerial and political connections have a significant effect on Italian non-commercial banks. They argue that although disciplinary mechanisms are in place in every bank, connected top managers and top executives have a significantly lower turnover in such clusters of banks. Results from the present paper may be viewed as supportive to their findings. The present paper also tends to confirm findings from scholarly research (Ferri, Masciandro and Messori, 2001; Bongini and Ferri, 2007) on the fact that managers and boards are generally more stable in Italian cooperative banks compared to commercial banks. In fact, holding a top management

¹ The final version is published in the *European Economic Review* (see Battistin *et al.*, 2012).

position in cooperative banks decreases the risk of a manager leaving that position. Furthermore, results in the present study clearly show that the juridical form of banks as well as the institutional legacy and history matter in terms of governance specifics in banks.

The remaining part of the paper is structured as follows: section 2 provides a descriptive summary of the Italian banking system with a concise account of policies aimed at improving the competition of banks and consolidating the market. Section 3 provides an account of both the research methodology used in this paper and the dataset. Section 4 provides results on management turnover obtained with an exploratory analysis at first, and then substantiated with both parametric and semi-parametric regressions. Sections 5 and 6 further discuss disciplinary mechanisms as well as specifics in the corporate governance of banks by reference to bank performance and business cycles. Finally, section 6 sets the conclusions.

2. Italian banking: institutional setting

Although contemporary banking is often considered to be an industry that operates globally, it is nonetheless important to focus on specific banking groups at a country level as, in fact, some types of banks operate only locally or, at best, nationally (and “not” internationally). The specifics of banks at a country-level continue to be very important and, thus, need to be properly acknowledged (Pines, 2003). A number of scholarly accounts show that during the 1990s Italian banking was subject to significant market improvements and regulatory changes. Several banks have been privatised, and Government ownership of banks in Italy has decreased sharply – that is, from 68 percent in 1992 to less than 10 percent in 2003². The goal driving such changes was to increase the competitiveness of Italian banks, both within the country and at the European level (Angelini and Cetorelli, 2003; Messori, 2004; Carletti *et al.*, 2005; Chiaramonte, 2007; Bini Smaghi, 2007).

Among the various changes, one may focus on the following. First, an anti-trust policy was developed in order to secure and improve market competition. In particular, anti-trust for banking and market supervision was assigned to the Bank of Italy in 1990. In the same year the Amato Law – named after former Prime Minister Giuliano Amato – was signed, aimed at securing diversity in banking and thereby increasing the competitiveness of Italian banks. Finally, the Italian banking regulation (the so-called *Testo Unico in materia bancaria*) was signed in 1993. The outcomes from these innovations in banking regulation were a process of banking consolidation and a rearrangement in the ownership of banks. As a result of regulatory changes, mergers among banks and some technological innovations, the number of banks decreased from 1,061 to 769, in more-or-less one decade. Also, such developments increased some differences and actually drew a sharp line between banks and non-financial enterprises (Messori, 2004; Panetta, 2004).

In the early 1990s, the Italian banking landscape was characterized by a large number of small banks with strong local connections and by only a small number of large banks operating at a national level. Despite some market improvements (such as a general increase in bank’s profitability without significant impairments e.g. in the availability of banking services and loans), the overall changes have been quite limited: at the end of 2005, the Bank of Italy classified most of the banks as “small” (605 out of 784) or “very small” (124) whereas those classified as “medium-sized” were relatively few (33), and large banks

² Estimates provided by the Bank of Italy (1998-2004).

(11) or banking conglomerates even fewer (11)³. Therefore, it can be argued that during the 1990s and 2000s differences among banks and different banking groups persisted. This is particularly relevant for the present paper as the aim is to provide the reader with an account of the main differences between banks, particularly those between commercial and non-commercial banks in Italy.

Banks, like other financial intermediaries and financial markets in general, are fundamental for the existence of a market economy. Banks traditionally perform important activities such as the reduction of transaction costs from direct finance, the transformation of short-term liabilities into long-term loans essential for firms, and the provision of payment mechanisms (Gurley and Shaw, 1960; Diamond and Dybvig, 1983; Dewatripont and Tirole, 1992). However, banks differ in the goals they pursue and in terms of how they organise their main business. In drawing to the reader's attention that the present paper focuses on the Italian banking market, it is particularly important to distinguish between commercial and non-commercial or cooperative banks.

Cooperative banks in Italy as well as in other countries are characterized by a democratic governance model. Italian cooperative banks are characterized by conservative development policies and by the dominance of relationship banking (see, for instance, Berger and Mester, 1997; Ayadi *et al.*, 2010; Giagnocavo *et al.*, 2012; Manetti and Bagnoli, 2013). It is argued that the evaluation of such banks should focus not only on their profit-making and capacity to make a surplus. Instead, they should be praised for effectively channelling funds to local enterprises and for securing quality of life to local communities and societies⁴. Italian cooperative banks, particularly mutual cooperative banks, are characterized by the following features:

- they are rooted in local economies (though some popular banks operate nationally) and their model is encouraged to flourish at the local levels;
- they are based on the notion of cooperative membership in which members are the primary customers of the bank⁵;
- the voting mechanism in such banks is based on the principle "one person, one vote".

In fact, their model of governance is based on democratic member control and a rather conservative profit allocation policy. Nonetheless, management and overall governance in such banks is not free of problems. For instance, it is often argued that in Italy they are not excluded from political influence (Stefancic, 2010). Similarly, drawing on a discussion dating back to Alfred Marshall (1920), one may suggest that, as in the past, cooperative banks currently face problems in selecting and retaining the best managers. It may be argued that banks with lower management turnover have adopted more conservative management practices, development policies and business models⁶.

³ See the document *Relazione Annuale della Banca d'Italia del 2006 sul 2005*; and Chiamonte (2007, particularly pp. 97-101).

⁴ Refer for instance to the principles and values of mutual cooperative banks as listed in the *Carta dei valori del credito cooperativo* signed in 1999. For a discussion on the focus on local economies of such banks, see also Pagano and Panunzi (1997).

⁵ As observed by Alexopoulos *et al.* (2013, p. 392), the fact that members in mutual cooperative banks can be both depositors and borrowers implies that managers should represent the contrasting interest of both.

⁶ In some limited cases, certain banks might simply have no alternatives to that.

3. Methodology and data

3.1. Survival analysis

In order to study the management turnover in Italian banks, a survival analysis has been performed. Survival analysis, which is popular in biology and medicine, is a branch of statistics applied to the study of death in biological organisms or failure in mechanical systems (see for example Lee and Wenyu Wang, 2003; Alisson, 2004; Jenkins, 2005; Matter, 2012). It includes a variety of statistical methods designed to “describe, explain or predict the occurrence of events” (Alisson, 2004, p. 369). As such, it can be applied to the study of banks and their governance systems, and is particularly suitable for the study of specific issues in economics and business such as, for instance, management turnover and the duration of managerial tenure. In the present study, a turnover is interpreted primarily as a failure to keep a top position, or the result of a top manager being fired from his/her position (by contrast, a turnover resulting from retirement or voluntary step down may be rare).

Survival analysis is quite similar to “duration analysis” or duration modelling used in the social sciences. Even if it is not very popular in economics and business studies, it is nevertheless gaining popularity as it has been recently applied to a number of fields including innovation strategies and the survival of new firms (Audretsch, 1991; Audretsch and Talat, 1995; Helmers and Rogers, 2008), the survival or shut-down of manufacturing plants (Bernard and Jensen, 2007), the study of bank failure and financial distress (Lane *et al.*, 1986; Gepp and Kumar, 2008), and the study of specific topics such as recidivism (Rossi *et al.*, 1980) to list but a few.

Such a method appears to be particularly useful for the goals and purpose of the present study. Indeed, even though it is impossible to carefully distinguish between a voluntary departure (or quit) from a bank and non-voluntary turnover, the study takes into account the amount of time in which a manager stays in his/her position in the same bank. The inability to clearly distinguish the cause for the turnover is due to the fact that collected data and published sources do not evidence whether it is forced resignation, death of the manager, or retirement. Previous research suggests that this is a common problem in such types of research⁷.

A question naturally arises whether the problem could be tackled with other, more common approaches. Common time series models (i.e. ARIMA) must be ruled out because the phenomenon we are observing is whether a manager keeps his/her position, and using a time series could only be described with a binary variable (manager keeping the position/losing the position). There are other options, though. One could think of a time series model with a binary observable variable (manager in position/not in position), dependent on a latent unobservable variable (such as “trust” by the owners). This could be interpreted as a Hidden Markov Model (HMM) or another time series model with latent variables, according to the state transition rules. It should be noted, however, that such a model would require an estimation of numerous parameters (at least a state transition matrix dependent on the covariates) and it would require time-dependent covariates relative to the bank performance that are not generally available for all years and all banks in the sample for the time-frame considered. Also, some variables (i.e. bank type), whose significance is exactly what I intend to measure in the present study, would be fixed and their interpretation would thus

⁷ For a discussion refer to – amongst others – Brunello *et al.* (2003). Anecdotal evidence confirms that voluntary resignation from top management positions in Italian banks are quite rare or exceptional.

be problematic⁸.

One should instead proceed to simpler models until simplicity can be traded for greater explanatory power: survival analysis provides straightforward models that abide to the statistical principle of parsimony. The core assumption is that all managers enjoy the same level of confidence from the owners/board when they are nominated into a position, and each year they risk losing their jobs. In other words, each year they are subject to risk (we may define it as “termination risk”). The levels of risk may vary in time⁹ and may vary depending on bank- and manager-specific effects. The magnitude of these specific effects can then be estimated, which is the main aim of the study. It must be also taken into consideration that the data available is limited to 10 years. Therefore, a non-negligible subset of the data is censored, that is, managers were already in position (for an unknown amount of years) when the observation window began and remained in position after the end of the observation window (again, for an unknown number of years). Excluding censored data would lead to bias (as censored data is more likely to be related to managers holding their position for a large number of years), and ignoring the censoring would therefore lead to bias as well (as censored data would be underestimated). Although one could model the probability of a manager stepping down or being fired as a logit/probit model, including the length of his term as a covariate, neither a logit model nor a time series framework (like a HMM) would provide a clear and simple way to deal with censored data as survival analysis models do.

The distribution of the variables studied in survival analysis are not usually defined in terms of the probability density function $f(t)$ or of the cumulative distribution function $F(t)$. Instead, the distributions used are usually characterized by their survival function $S(t)$ and their hazard function $h(t)$. Both can be derived from $f(t)$ and $F(t)$. The survival function equals the probability that a component, or device, survives until time t . It thus equals the reliability function, namely the probability that the component is still working at time t . In our setting, it describes the probability that a manager keeps his position from time 0 to time t . The survival function $S(t)$ is defined as follows:

$$S(t) = 1 - F(t) \tag{1}$$

where $F(t)$ is the lifetime distribution (or cumulative distribution function).

To quote from Gepp and Kumar, “lifetime distributions are distributions with a nonnegative random variable that represents the lifetimes of individuals (or businesses) in some population. Lifetime distributions can be characterized by a number of descriptor functions, the most commonly being the survival or hazard function. The survival function $S(t)$ represents the instantaneous rate of failure at a certain time t . The interpretations of these two functions is very different, but either one can be derived from the other” (Gepp and Kumar, 2008, p. 3).

The hazard function, on the other hand, is a measure of the risk of failure/death, and is defined as follows:

$$h(t) = \frac{f(t)}{S(t)} \tag{2}$$

⁸ Effects dependent on bank characteristics could be either modelled as trend effects or as multiplicative effects. Both would mimic a natural rate of trust decay depending on bank/manager fixed characteristics, but in doing so, a survival analysis reference frame is implicitly assumed.

⁹ Constant risk, or in other words, a constant hazard function, is a special case in survival analysis where survival time is distributed according to an exponential distribution.

It can be interpreted as the instantaneous failure rate or $h(t) = \lim_{\Delta t \rightarrow 0} \frac{S(t) - S(t + \Delta t)}{\Delta t \times S(t)}$.

3.2. Dataset

Data have been drawn from the database provided by the Italian Banking Association (ABI) and from the so-called *Annuari ABI*, containing information on banks and bank managers. The analysis is performed on an 11-year dataset, which includes data on virtually all available top management positions in Italian banks from 1993 to 2003. The dataset contains information both on the positions of 2,725 top managers in Italian banks, and on the banks where they were employed. Data on banks consist of the ABI codes for each bank, their juridical form, and the province of their headquarters. With respect to the juridical form of banks, Italian banks are classified in four large groups or types: commercial banks (PLCs), people's banks (*Banche popolari*), cooperative mutual banks (*Banche di credito cooperativo*), and special purpose banks¹⁰. Furthermore, these typologies of banks are then divided into two main groups: commercial banks (PLCs and those special purpose banks which are largely commercially-oriented); and cooperative banks (*Banche popolari* and *Banche di credito cooperativo*). Cases of mergers and acquisitions (M&As) of banks have been carefully accounted for in order to prevent errors in the outputs from the analysis. M&As can be, in fact, thought of as a disciplining mechanism or as a way of selecting and retaining top managers (see Jensen and Ruback, 1983). Therefore, I will later focus on the process of M&As in the period under observation and its potential disciplining mechanism for top managers in Italian banks.

Table 1. Bank sample, general information

<i>Bank sample and classification codes</i>	
Total number of banks in the sample	770
Number of ABI codes in the sample in 1993	716
Number of ABI codes in the sample in 2003	572
Number of independent banks in 1993	649
Number of independent banks in 2003	402

Data on top managers, along with the name, surname and year of birth, include:

- the position (level of responsibility) of each listed person, namely: (a) CEO, (b) managing director, and (c) (honorary) president;
- the level of education of the person;
- the starting year in managerial position X as well as (possibly) the last year in managerial position X are specified.

For some variables, some data were missing. For example, data for 375 positions were missing with reference to the “age” variable while similar problems were encountered with respect to “education”. On the other hand, a number of potential variables which have been easily extrapolated from the dataset have been dropped simply due to their statistical insignificance: such is the case of the variable denoting the

¹⁰ The classification of banks is as follows. The special purpose banks typology includes commercial land banks, leasing, finance, medium and long term credit banks; PLCs are banks with the “SPA” denomination in Italian law: these are mostly commercial banks, saving and loans which are not classified as special purpose banks; *Banche popolari* are profit-oriented banks with a number of governance specificities (e.g., one vote per capita irrespective of the number of shares held by the shareholder) and thus, by reference to Bongini and Ferri (2007, p. 20), such banks can be classified as “cooperatives with a limited propensity to mutuality”; finally, the *Banche di credito cooperativo* (formerly rural and artisan banks) are mutual credit banks which are aimed to serve local communities.

gender of top managers, as the number of women present in the dataset is too low¹¹.

To further substantiate the analysis and account for the performance of banks, the dataset with information on top managers has been merged with financial data obtained from the Bankscope database, specifically with data on Return on Average Assets (ROAA). Since ROAA is a measure of bank performance, it made it possible to investigate and cast some light on the disciplinary mechanisms in different groups of Italian banks. The ROAA variable has been preferred to others as it is independent from bank size whereas for instance the size of deposits or assets is not. Finally, data on Italian GDP for the period under investigation, obtained from the Italian national statistical institute ISTAT, has been taken into account to assess the impact of the business cycle on management turnover.

4. Empirical analysis

Research shows that a specific feature of the Italian *Banche popolari* is the longer tenure of their board members. Some scholars tend to agree on the fact that, since the focus in such banks is mainly on longer-term business horizons, they have more stable boards of directors (Ferri, Masciandro and Messori, 2001; Bongini and Ferri, 2007). By reference to these papers, the hypothesis that there is, indeed, a difference between the group of Italian commercial and cooperative banks which originates from their institutional setting (among other factors), is here tested. If such were the case, the institutional and juridical dimension of banks would clearly matter in terms of how we conceive and understand governance in banks as I assume that the juridical form of banks also implies different mechanisms for disciplining managers on the one hand and, on the other, different ways of selecting (or keeping) managers for top positions. I investigate the main variables explaining for the turnover of top managers in Italian banks by focusing, for instance, on their level of education, age, as well as a number of specific bank features (such as the tradition of a bank and its institutional legacy as some banks have been transformed from savings banks to PLCs).

To generate and analyse survival data means to observe a sample of subjects (in our case top managers in Italian banks) over a predefined period of time, and recording whether and when the individuals experience the event, which in the present study is a step-down from the position. The main variable is measured in years as the difference between the year the person has been nominated into the position and the year the person has left the position. A continuity correction of +0.5 years has been applied.

Performed analyses include:

- Kaplan-Meier estimates of the general survival function for the whole sample and depending on various dichotomical and polytomical variables. These non-parametric estimates of the survival function are used as an exploratory analysis to identify the most influential factors that will be tested in the regression models.
- Kernel estimates of the hazard functions. Assessing whether the distribution of survival times conforms to a known distribution is necessary for subsequent parametric models. As described in the previous chapter, distributions are characterized by their hazard functions just as they are characterized by a probability density function.
- Log-rank test on the main hypothesis, namely that there is a significant difference in the duration of terms for commercial and cooperative banks. The test is meant to assess whether the main hypothesis holds, in which case it is sensible to explore the data further with regression models.

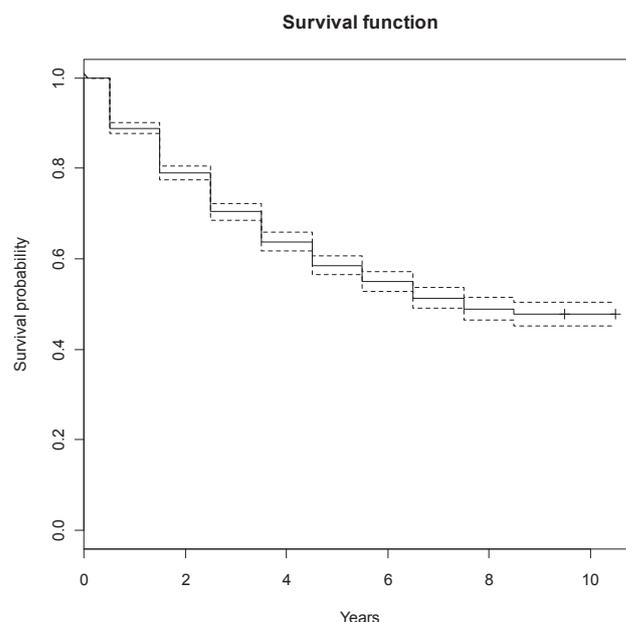
¹¹ This is not surprising: a recent paper by the Bank of Italy confirms that the low presence of women on Italian bank boards is a persistent problem. Refer to Del Prete and Stefani (2013).

- Parametric regression (Accelerated Failure Time model) on the dataset to estimate influences of bank- and manager-specific factors on mean survival time; model selection based on Bayesian Information Criterion (BIC); and, finally, Cox regression as a semi-parametric alternative to AFT models, relaxing the assumptions of AFT models.

4.1. Exploratory analysis: non-parametric estimates of survival functions

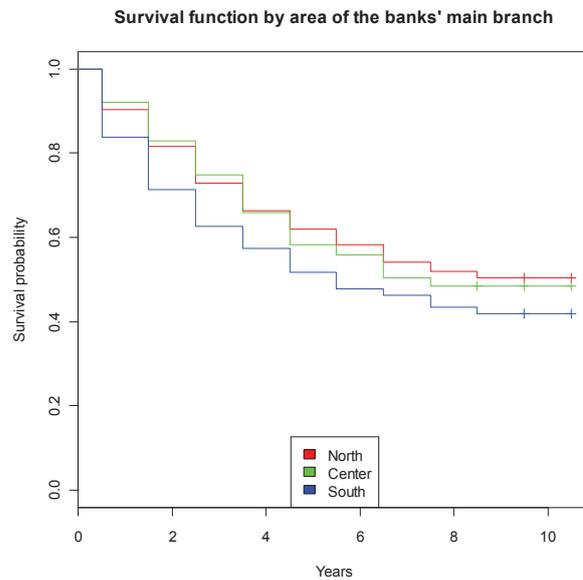
To begin with, general trends in terms of employment of the top managers in the sample are investigated. Figure 1 shows that around half of the terms in the sample have lasted throughout the whole observation period 1993-2003. This suggests that in the period under observation, more or less half of the top managers remained in their position in the same bank, while half of them either shifted position or have changed their employment conditions. In either case, however, they “did” step down from the original position.

Figure 1. Kaplan-Meier estimates of the survival function



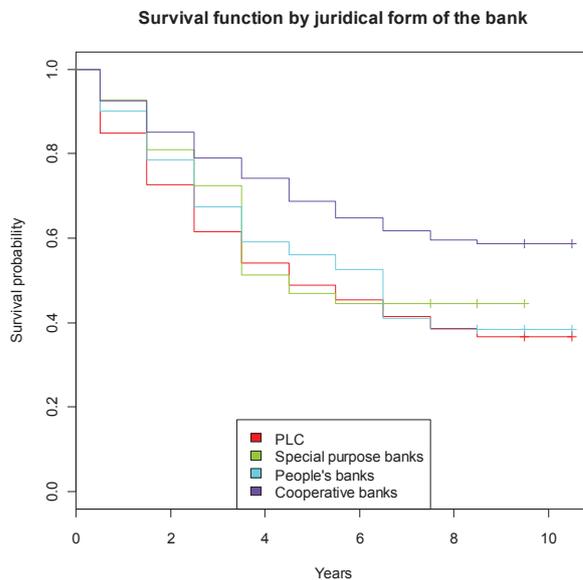
An insightful question posed at the beginning of the study is whether the macro-region in which a bank is located influences the probability of survival for its top managers. Figure 2 shows that the survival probability decreases more rapidly if the main branch or headquarters (*sede legale*) of the bank is situated in Italy's southern regions compared to central and northern regions. A good explanation relates to the disappearance of an independent banking system in southern Italy and, thus, a higher management turnover in southern Italian regions as a result of changes in governance structures and management teams and the subsequent novelties resulting from M&As. According to scholars such as Zazzaro, between 1990 and 2000, M&As have been particularly frequent among commercial banks, even though it may be argued that cooperative banks have not been excluded from this process (Zazzaro, 2003 and 2004; see also Giannola, 2002).

Figure 2. Survival function by area of bank's main branch



In subsequent analysis, northern and central Italian regions have been merged together in order to focus the analysis at a country level. This is not due to any shortcoming in the dataset or any uneven distribution of banks. Instead, the choice is supported by the fact that analysis at a national level is most interesting to economists and most relevant to policy-makers¹².

Figure 3. Juridical form of the bank



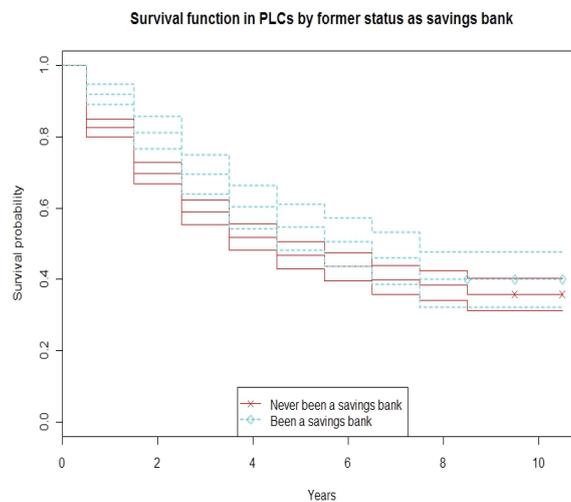
The core hypothesis in the present study, namely that there are differences in survival times of top managers in cooperative and commercial banks, is outlined in Figure 3. The Kaplan-Meier estimate of

¹² Research on cooperative banks conducted at a country level is possibly the best option for promoting a discussion on such banks with a communitarian policy framework. By addressing relevant issues on cooperative banks within a national banking system framework, one is able to capture the specifics and peculiarities of such banks. Indeed, regional and macro-regional differences are often significant for the Italian banking system. In addition to that, it should be recalled that Italian cooperative banks do not engage in international operations (as some commercial banks do) since their business focuses largely on local and regional markets.

the survival function clearly confirms this hypothesis: Top managers in cooperative banks are those that have the highest survival probability; by contrast, top managers in commercial banks are those that show the lowest survival probability. Top managers in people's banks and special purpose banks are somewhat in between. In subsequent analysis, people's banks will be merged into the cooperative banks group and special purpose into the commercial banks group together with PLCs in order to limit the analysis to the two major banking categories.

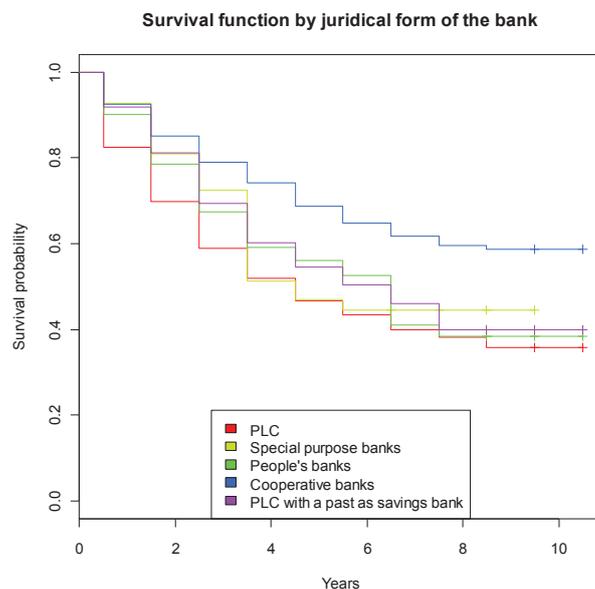
Before doing that, it is interesting to first observe that there are some differences even within the vast group of PLCs themselves (see Figure 4). Precisely, managers in banks which were formerly savings banks (*Casse di risparmio*) have a higher probability of survival.

Figure 4. PLCs by former status as savings banks



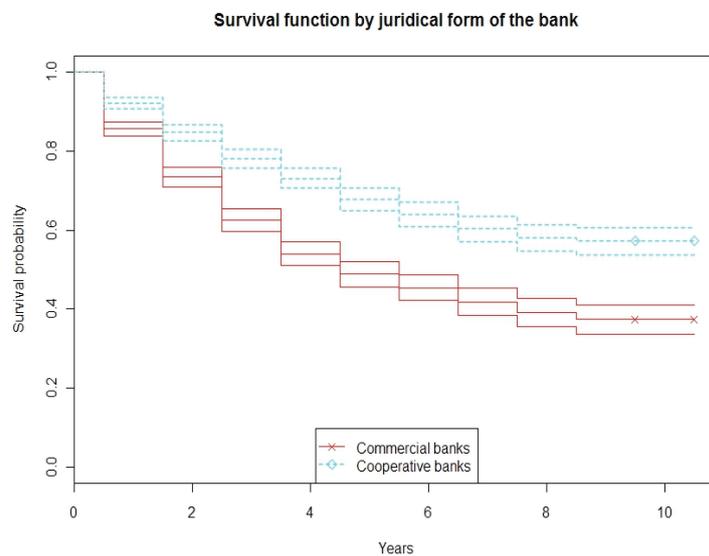
It is therefore helpful to reclassify the juridical form variable in order to account for the differences between PLCs with and without a past as a savings bank. This is shown in the next figure (Figure 5).

Figure 5. Juridical form of the bank



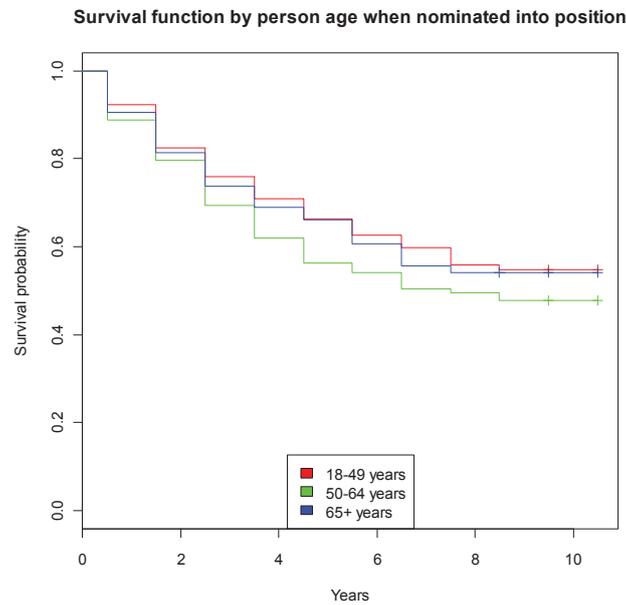
While top managers in cooperative banks still show a higher probability of survival, the survival probability of managers in PLCs which were formerly savings banks are somewhat closer to those in people's banks. By contrast, top managers in PLCs without a past as a savings banks and special purpose banks have the lowest survival probability. This result confirms the validity of arguments provided by Ferri *et al.* (2000) on the fact that turnover for top managers is lower in commercial banks which were formerly savings banks, particularly when performance is either negative or below average. It also points to the fact that not only the juridical form and the institutional setting, but also banks' history and tradition influence management turnover and, presumably, their corporate governance. Managers in cooperative and formerly cooperative banks tend to remain in their position longer than managers in commercial banks. Arguably, they are exposed to lower external pressure and are subject to looser disciplinary mechanisms – something that will be further investigated later on in this paper.

Figure 6. Juridical form of the bank



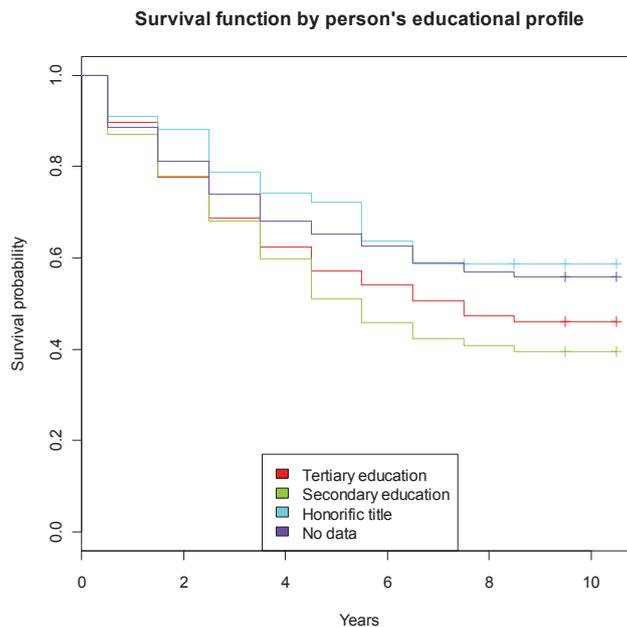
In Figure 6, cooperative banks include cooperative credit banks and people's banks; commercial banks include all PLCs and special purpose banks. Differences between these two groups appear to be rather significant. Indeed, the figure clearly shows that the survival probability for top managers in cooperative banks is higher compared to that of top managers in commercial banks.

Figure 7. By age of top managers



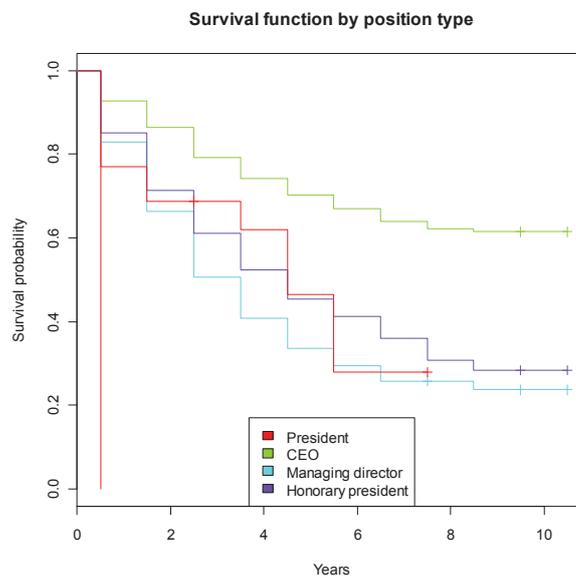
As shown in Figure 7, age is “not” a particularly significant factor when considering the survival probability of top managers. The group with the lowest survival probability, aged 50-64 years when they took the position, is also the largest one. It is also important to acknowledge the fact that for these variables there are 375 cases with missing data. From the above figure, one may conclude that being aged between 50 and 64 years increases the managers’ probability of leaving his or her position. This is probably due to the fact that in Italy this is the average retirement age, at least for banking managers. Managers that are older seem to keep their position longer as on the one hand they are probably viewed as valuable human resources with a significant amount of experience and knowledge; and, on the other hand, as a result of the emotional attachment that managers may have for the bank after many years of service.

Figure 8. By educational profile



Next, in Figure 8 the focus is on the connection between the educational profile and honorific titles of the manager and the probability of remaining in the position throughout the examined period. Information about the managers' education and honorific titles have been extrapolated from the dataset. Managers that have an honorific title – such as Knights of Labour, Barons, members of the Italian Parliament, have a higher probability of remaining in their position. According to Battistin *et al.* (2006, p. 11), such titles are “bestowed over people that have distinguished themselves for their service to the country or to their business”¹³. On the other hand, managers with only secondary education have a lower survival probability. Differences between groups, however, do “not” appear as significant, perhaps due to a number of missing data for this variable (precisely, 703 out of 2,725).

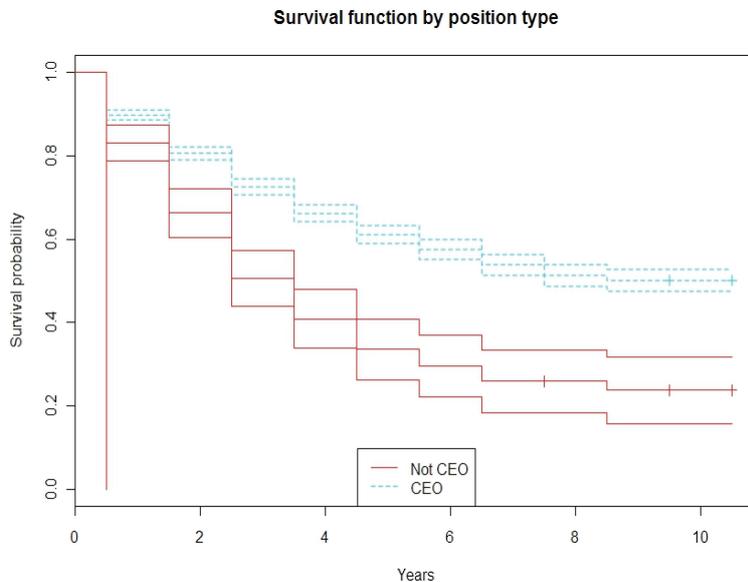
Figure 9. By top management position



In the above figure (Figure 9) the top management positions are outlined and divided as follows: (a) President; (b) Chief executive (CEO); (c) Managing director; and (d) Honorary president. Results from the analysis suggest that CEOs have the most power in their hands. Therefore, becoming a CEO warrants the highest survival probability among top managing positions. By contrast, honorary presidents have a low probability of survival, possibly due to the age at which people get nominated for such a position. It is therefore meaningful to reclassify this variable into a dichotomous variable CEO/not CEO (Figure 10):

¹³ The dataset used in the present analysis is comprised of titles denoting the educational level obtained in the Italian formal education, and honorary appointments. These include the following titles: dr., dr. ing., geom., rag., cav., etc. Such is the honorary title *Cavaliere del lavoro* which can be translated as Knight of Labour. This title is normally awarded for excellence in industry, commerce, agriculture and in related fields.

Figure 10. By top management position



As shown by Figure 10, the difference between the two groups is quite significant.

4.2. Testing for statistical significance

To further substantiate the statistical validity of the analysis performed so far and formally assess whether a difference among the two major banking groups exists, the log-rank test is performed. The test is performed on the null hypothesis that the two main banking groups under investigation have the same survival function. Stated otherwise, this test is a hypothesis test to compare the survival distributions of two samples – that is, the cooperative banks on the one hand, and commercial banks on the other. Specifically, the test aims at verifying whether a difference exists in the survival probabilities of managers in the two main groups of banks under investigation.

H0: survival probabilities of commercial banks and cooperative banks are the same.

H1: survival probabilities of commercial banks and cooperative banks are different.

Table 2. Log-rank test, outputs

	<i>Nr Observed</i>	<i>Expected</i>	$(O-E)^2/E$	$(O-E)^2/V$
Commercial banks	1379	517	396	37.1
Cooperative banks	1346	338	459	32.0
Chi-squared = 90.8 on 1 degrees of freedom				
p-value = 0				

H0 is rejected. As can be observed in Table 2, the test shows that there is, in fact, a difference in the survival probability of top managers in the two banking groups.

4.3. Parametric and semi-parametric regressions

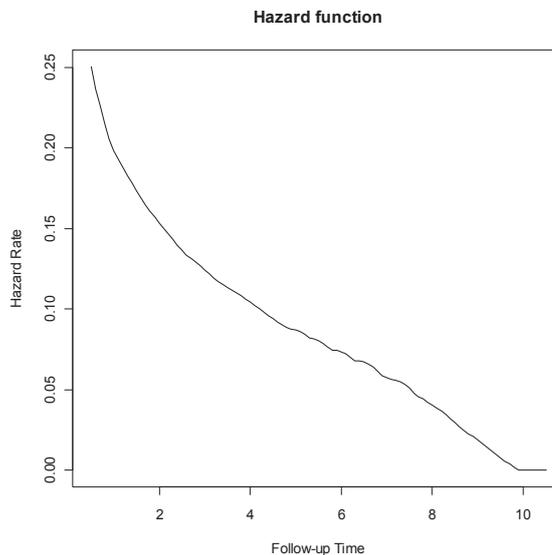
Considering that the main hypothesis (that survival probabilities in commercial and cooperative banks differ) has been confirmed, with the null hypothesis rejected with a p-value almost indistinguishable from zero, it makes sense to explore further relationships between other variables and survival probabilities. This can be done with the use of regression models.

In survival analysis, several statistical methods for regression modelling are at hand. As noted by Gepp and Kumar (2008), the basic difference between various survival analysis models is in the assumptions about the relationship between the hazard (or survival) function¹⁴ and the set of explanatory variables. Traditionally, survival analysis has been divided into two main types of regression models, namely: a) accelerated failure time (AFT) models, and b) proportional hazards (PH), of which Cox's PH model (Cox 1972) is the most famous. In the present study, the AFT model is estimated first, and the model selection process is based on the progressive inclusion of significant covariates, with a final selection between models with all significant covariates based on the Bayesian Information Criterion (BIC). The BIC is a standard criterion for model selection among a finite set of models¹⁵. Subsequently, the Cox regression is used as a semi-parametric alternative.

4.3.1. Hazard function

The AFT model is a fully parametric model. It is therefore necessary to assess the distribution of the dependent variable (survival time) before attempting regression. This could be done with non-parametric estimates of the hazard function, as each distribution is characterized by a specific hazard function.

Figure 11. Kernel estimates of the Hazard function



¹⁴ As noted in the previous chapters, the hazard function and the survival function characterize a distribution much like the probability density function and the cumulative distribution function.

¹⁵ The BIC was developed by Gideon E. Schwarz in the late 1970s. See Schwarz (1978, pp. 461-464).

The general hazard function is monotonically declining and is hinting at a Weibull distribution¹⁶ for the survival time with shape parameter $k < 1$ ¹⁷. This means that the accelerated failure time model is appropriate for the present analysis. Additionally, it means that the results will be interpretable both as accelerated failure times and as proportional hazards.

4.3.2. AFT models with selection based on the Bayesian Information Criterion

In this section, the actual AFT models are presented and briefly discussed. To start with, the independent variables used in the models are listed in the table below. All variables except for “age_at_position” are binary/categorical, and the lowest index is used as a baseline, so the coefficient shows the effect of the higher indexed (i.e. cooperative banks *vs.* commercial banks for *juridic_form_new2*). The variables, listed in Table 3, include information on the juridical form of banks, their geographic location, and information on top managers – that is, what some scholars refer to as the “demographic variables” such as age and level of education (Huselid, 1995).

Table 3. Variables used in the models

<i>Variable</i>	<i>Definition</i>
<i>juridic_form_new2</i>	1=commercial banks 2=cooperative banks
<i>juridic_form_new3</i>	1=commercial banks 2=commercial banks formerly a savings bank 3=cooperative banks (including people's banks)
<i>province2</i>	1=North+Centre 2=South
<i>main_branch</i>	0=the main branch is not in a province's capital 1= the main branch is in a province's capital
<i>position2</i>	1=not CEO 2=CEO
<i>age_at_position</i>	Age when promoted to a top management position
<i>education3</i>	1=tertiary education 2=secondary education 3=honorific title

Next, the models are introduced, starting from simple to more complex (namely, with a larger set of parameters being included). Since the null hypothesis that the juridical form of banks has no effect on the survival probabilities of top managers has been rejected by the log-rank test, it is the first term to be included in the models. As we fit the model using a Weibull distribution, the Weibull scale parameter is estimated as well and is included in the tables. It should be noted that in all cases, it is close to 1 and is therefore of little interest.

¹⁶ The survival function of the Weibull distribution is $S(t) = e^{-(t/\lambda)^k}$, with k being a shape parameter and λ a scale parameter.

The hazard function is $h(t) = \frac{k}{\lambda} \left(\frac{t}{\lambda}\right)^{k-1}$ and it is monotonically declining with k between 0 and 1. Examples of the Weibull hazard functions can be found in the Appendix.

¹⁷ The hazard functions estimated for the juridical forms of banks are in the Appendix. Results confirm the viability and appropriateness of the method used for the analysis.

Table 4. Model 1 Juridic form (commercial-cooperative banks)

<i>Variable</i>	<i>Value</i>	<i>Std.err.</i>	<i>z-score</i>	<i>p-value</i>
Intercept	1.2572	0.0988	12.7	4.22e-37
juridic_form_new2	0.6963	0.0672	10.4	3.80e-25
Log(scale)	0.0461	0.0256	1.8	7.16e-02
Scale= 1.05				
Weibull distribution				
Log-likelihood(model)			-3313.8	
Log-likelihood(intercept)			-3369.6	
Chi-squared			111.67 on 1 degr. of freedom	
p-value= 0				

As shown in Table 4, all parameters in the first model are significant, and the model as a whole is significant as well, as shown by the likelihood ratio test between the null model (intercept only) and the full model.

The multiplicative effect of the covariates on the risk of losing the position is as follows (the intercept value should be ignored):

Intercept	0.3010368
juridic_form_new2	0.5143221

A manager in a cooperative bank has half the risk of leaving his/her position in a given year compared to the same manager in a commercial bank¹⁸.

Table 5. Model 2 Juridic form and area of the main branch (north+center, south)

<i>Variable</i>	<i>Value</i>	<i>Std.err.</i>	<i>z-score</i>	<i>p-value</i>
Intercept	1.7325	0.1307	13.25	4.39e-40
juridic_form_new2	0.7216	0.0673	10.72	8.28e-27
province2	-0.3993	0.0701	-5.69	1.25e-08
Log(scale)	0.0433	0.0255	1.69	9.02e-02
Scale= 1.04				
Weibull distribution				
Log-likelihood(model)			-3298.1	
Log-likelihood(intercept)			-3369.6	
Chi-squared			143.01 on 2 degr. of freedom	
p-value= 0				

All parameters are significant (the non-significance of the scale parameter is meaningless). The multiplicative effect of the covariates is as follows:

Intercept	0.1903095
juridic_form_new2	0.5010334
province2	1.4657601

As shown by the multiplicative effects of the covariates, a top manager in a bank with the main branch in one of the southern regions has a 46.5% higher risk of leaving his/her position.

¹⁸ In layman's terms, an accelerated failure time model should be interpreted in terms of time and a proportional hazards should be interpreted in terms of hazard. In this specific case, a manager in a cooperative bank experiences the same risk of leaving his/her position within two years since he/she was nominated into that position as a manager in a commercial bank within the first year (or, if you prefer, four *versus* two years). In the proportional hazards settings (which in this special case coincides since a Weibull distribution is being used), it can be argued that the risk of leaving the position within a given year for a manager in a commercial bank is twice that of a manager in a cooperative bank.

Table 6. Model 3 Juridic form and level of education

<i>Variable</i>	<i>Value</i>	<i>Std.err.</i>	<i>z-score</i>	<i>p-value</i>
Intercept	1.4169	0.1303	10.872	1.57e-27
juridic_form_new2	0.6099	0.0787	7.747	9.40e-15
education3	-0.0432	0.0595	-0.726	4.68e-01
Log(scale)	0.0199	0.0289	0.688	4.92e-01
Scale= 1.02				
Weibull distribution				
Log-likelihood(model)			-2518.2	
Log-likelihood(intercept)			-2550.4	
Chi-squared			64.49 on 2 degrees of freedom	
p-value= 9.9e-15				

Education is “not” significant in explaining the turnover of top managers, as the coefficient has a p-value of 0.468.

Table 7. Model 4 Juridic form, main branch area and level of education

<i>Variable</i>	<i>Value</i>	<i>Std.err.</i>	<i>z-score</i>	<i>p-value</i>
Intercept	1.7561	0.1678	10.465	1.24e-25
juridic_form_new2	0.6421	0.0794	8.087	6.13e-16
province2	-0.2629	0.0800	-3.286	1.02e-03
education3	-0.0754	0.0602	-1.252	2.10e-01
Log(scale)	0.0186	0.0288	0.646	5.18e-01
Scale= 1.02				
Weibull distribution				
Log-likelihood(model)			-2512.9	
Log-likelihood(intercept)			-2550.4	
Chi-squared			75.02 on 3 degr. of freedom	
p-value= 3.3e-16				

With reference to Table 7, it can be suggested that education is, again, not significant for the purpose of explaining the turnover of top managers in Italian banks.

Table 8. Model 5 Juridic form, main branch area, position type (CEO/not CEO)

<i>Variable</i>	<i>Value</i>	<i>Std.err.</i>	<i>z-score</i>	<i>p-value</i>
Intercept	2.4854	0.1932	12.87	6.86e-38
juridic_form_new2	0.6239	0.0696	8.97	2.96e-19
province2	-0.4090	0.0695	-5.88	4.05e-09
position2	-0.5466	0.0972	-5.63	1.85e-08
Log(scale)	0.0336	0.0255	1.32	1.87e-01
Scale= 1.03				
Weibull distribution				
Log-likelihood(model)			-3283.9	
Log-likelihood(intercept)			-3369.6	
Chi-squared			171.51 on 3 degr. of freedom	
p-value= 0				

All parameters in Model 5 are significant.

The multiplicative effects of the covariates are as follows:

Intercept	0.09042325
juridic_form_new2	0.54702035
province2	1.48508701
position2	1.69650634

Not being a CEO thus bears a 69.6% higher risk of leaving the position. This appears to be among the most interesting results from this study.

Table 9. Model 6 Juridic form, main branch area, position type (CEO/not CEO), past as former savings bank (incorporated into the "juridic form" variable)

<i>Variable</i>	<i>Value</i>	<i>Std.err.</i>	<i>z-score</i>	<i>p-value</i>
Intercept	3.0520	0.1719	17.755	1.59e-70
juridic_form_new32	0.0931	0.1052	0.886	3.76e-01
juridic_form_new33	0.6474	0.0742	8.722	2.72e-18
province2	-0.3972	0.0707	-5.619	1.92e-08
position2	-0.5293	0.0990	-5.344	9.07e-08
Log(scale)	0.0336	0.0255	1.319	1.87e-01
Scale= 1.03				
Weibull distribution				
Log-likelihood(model)			-3283.5	
Log-likelihood(intercept)			-3369.6	
Chi-squared			172.3 on 4 degr. of freedom	
p-value= 0				

The difference between commercial banks without a past as savings banks and cooperative banks is quite significant (juridic_form_new33). Conversely, the difference between commercial banks with and without a past as savings banks (juridic_form_new32, p-value 0.376) is not significant. Therefore, although commercial banks with a past as a former savings bank are more similar to cooperative banks than commercial banks without that legacy, the difference is not strong and, thus, this information can be dropped.

Table 10. Model 7 Juridic form, main branch area, position type (CEO/not CEO), main branch in the main city of the province (*capoluogo di provincia*)

<i>Variable</i>	<i>Value</i>	<i>Std.err.</i>	<i>z-score</i>	<i>p-value</i>
Intercept	2.9901	0.2310	12.94	2.57e-38
juridic_form_new2	0.4079	0.0875	4.66	3.17e-06
province2	-0.4713	0.0710	-6.64	3.19e-11
position2	-0.5041	0.0970	-5.20	2.01e-07
positions\$main_branch	-0.3511	0.0869	-4.04	5.37e-05
Log(scale)	0.0285	0.0255	1.12	2.64e-01
Scale= 1.03				
Weibull distribution				
Log-likelihood(model)			-3275.6	
Log-likelihood(intercept)			-3369.6	
Chi-squared			188.05 on 4 degr. of freedom	
p-value= 0				

All parameters in Model 7 are significant.

The multiplicative effects of the covariates are as follows:

Intercept	0.05468431
juridic_form_new2	0.67267892
province2	1.63221634
position2	1.40664861
positions\$main_branch	1.40664861

Having the main branch in the *capoluogo di provincia* increases the risk by slightly more than 40%.

Table 11. Model 8 Juridic form, main branch area, position type (CEO/not CEO), main branch in the main city of the province (*capoluogo di provincia*), age when nominated into position

<i>Variable</i>	<i>Value</i>	<i>Std.err.</i>	<i>z-score</i>	<i>p-value</i>
Intercept	2.87242	0.33841	8.488	2.10e-17
juridic_form_new2	0.52440	0.09945	5.273	1.34e-07
province2	-0.37756	0.07993	-4.724	2.32e-06
position2	-0.44849	0.10300	-4.354	1.34e-05
positions\$main_branch	-0.42828	0.09680	-4.425	9.66e-06
age_at_position	-0.00175	0.00361	-0.486	6.27e-01
Log(scale)	0.01935	0.02812	0.688	4.91e-01
Scale= 1.02				
Weibull distribution				
Log-likelihood(model)			-2782.4	
Log-likelihood(intercept)			-2884.1	
Chi-squared		203.48 on 5 degr. of freedom		
p-value= 0				

As it appears from the last model (see Table 11), the “age” parameter is “not” significant (p-value 0.627). Stated otherwise, age is not helpful in explaining the phenomenon of management turnover in Italian banks for the observed period 1993-2003.

4.3.3. Cox regression

The Cox proportional hazards model is a semi-parametric model based on the assumption that hazard functions are the same in different groups up to a multiplicative constant. Since the AFT model with a Weibull distribution can also be interpreted as a proportional hazards model, it is appropriate to estimate a Cox regression to check if results are consistent. Indeed, results presented below confirm the consistency of the previous regressions.

Table 12. Cox regression, outputs

<i>Variable</i>	<i>coef</i>	<i>exp(coef)</i>	<i>se(coef)</i>	<i>z-score</i>	<i>Pr(> z)</i>
juridic_form_new2	-0.37835	0.68499	0.08418	-4.495	6.97e-06 ***
province2	0.44688	1.56342	0.06839	6.534	6.40e-11 ***
position2	0.43732	1.54856	0.09411	4.647	3.37e-06 ***
positions\$main_branch	0.28445	1.32902	0.08401	3.386	0.00071 ***
Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1					
<i>Variable</i>	<i>exp(coef)</i>	<i>exp(-coef)</i>	<i>lower .95</i>	<i>upper .95</i>	
juridic_form_new2	0.685	1.4599	0.5808	0.8079	
province2	1.563	0.6396	1.3673	1.7877	
position2	1.549	0.6458	1.2877	1.8622	
positions\$main_branch	1.329	0.7524	1.1272	1.5669	
R-square	0.056 (max possible= 0.996)				
Likelihood ratio test	157 on 4 degr.of freedom				
	p-value=0				
Wald test	160.5 on 4 degr.of freedom				
	p-value=0				
Score (log-rank) test	165.9 on 4 degr.of freedom				
	p-value=0				

Observations n = 2725; number of events (turnovers) = 1034

The multiplicative effects of the covariates are close to the effects estimated by the AFT model.

R-squared is low due to many factors, the main ones being the high survival rate in the period observed (6.6% of the sample kept their position for all the observation period, and, in addition to that, 62% of the

observations are censored); the measurement unit (years); and the inherent variability of the phenomenon that could not be captured completely by the variables under consideration.

To conclude, the results of the parametric and semi-parametric models are consistent with the findings of the exploratory Kaplan-Meier analysis and suggest that there is a link between bank types (commercial *vs.* cooperative) and managerial turnover. Even if one takes a number of other explanatory variables into account, bank type differences remain consistently significant against all models tested. While education and age are not helpful in explaining such a disciplinary mechanism, all the other parameters here considered (juridic form, main branch area, position type) have a certain explanatory power. In the period under observation, these variables are thus relevant in explaining the turnover of Italian top managers in banks.

5. Discipline and selection of top managers in Italian banks

The disciplinary mechanisms in Italian banks are now investigated. Indeed, it would make little sense to focus on management turnover without including some measure of bank performance and without considering disciplinary mechanisms in banks. To begin with, it is essential to start from the process of mergers and acquisitions (M&As), which in the period under investigation have been used extensively as a tool to consolidate the banking industry, improve the performance and competitiveness of some banks, and promote the growth of smaller banks as well as the development of some large Italian banking corporations. As scholars observed, during the 1990s the Italian banking industry was in fact subject to both regulatory and market changes in which M&As played an important role. Specifically, in the case of small cooperative banks, mergers and acquisitions served as a tool to pursue bigger dimensions (Santella, 2001; Angelini and Cetorelli, 2003; Messori, 2004; Chiaramonte, 2007).

There are specific reasons to make a merger or an acquisition in the banking industry. Amongst others, it is argued that M&As provide a means for managerial teams to compete for the rights to manage corporate resources as well as – specifically in banking – a means to improve banking performance. For example, by removing the less efficient managers from top positions, M&As can be thought of as either a disciplining mechanism or a tool for selecting top managers (Jensen and Ruback, 1983). A look at the data from the sample, particularly a focus on top management turnover in relation to the process of mergers and acquisitions provides interesting insights. As shown from the table below, which provides data on the number of turnovers directly related to M&As, the outcomes from the M&As process in terms of management turnover differs according to the classification of banks.

Table 13. Number of turnovers resulting from M&As (by number of positions subject to turnovers)

<i>Juridical form of banks</i>	0	1	2	3	4	5	6	Sum
Commercial banks Plc	972	165	6	7	94	24	1	700
Special purpose banks	88	8	0	0	9	4	1	70
Cooperative banks <i>Banche popolari</i>	91	10	0	1	5	2	1	49
Cooperative mutual banks BCC	1037	153	6	33	7	0	0	292

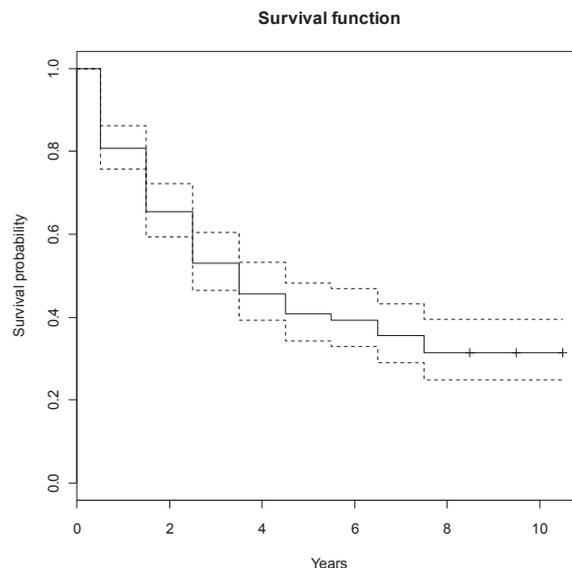
As Table 13 shows, despite the fact that local cooperative banks have been subject to M&As (and more frequently than other types of banks), the number of turnovers directly related to M&As in such banks is relatively lower compared to commercial banks. While the smaller dimension of boards of directors may in part help to explain the difference with commercial banks (arguably, the smaller the board, the lower the

probability that top managers need to be replaced or fired), the most plausible explanation is that M&As in smaller banks have simply not been used as a disciplining mechanism for top managers (whereas such was the case in some Italian commercial banks).

Next, with reference to the Bankscope database, I was able to match more than 215 positions with the ROAA (Return on Average Assets) of their banks for the year before the end of the term. Such a matching provides a new dataset that allows one to investigate the influence of results obtained in the last full year at position X on the probability of ending the term. The main research questions supporting this research is the following: “Is there such a thing as a top management turnover resulting from an unsatisfactory bank profitability?”; and: “How significant and widespread is such a phenomenon?”.

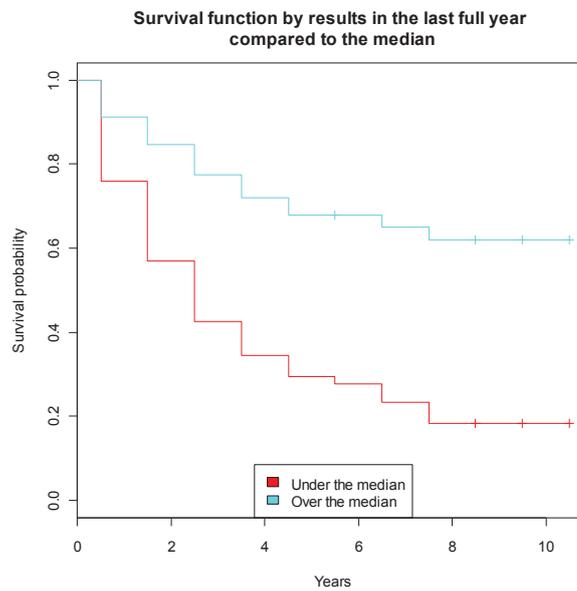
While other similar studies are based on performance measures such as return on equity (ROE) and non-performing loans (see Battistin *et al.*, 2006), the variable selected in the present study – that is, ROAA – is a financial indicator independent from the size of the bank (while other variables such as for instance assets or deposits are not). ROAA is a standard profitability ratio, and is calculated as net income divided by total average assets. Initial efforts to obtain aggregate data on ROAA for the Italian financial sector or at least for the banking sector from the Bank of Italy have not been successful. For this reason, a position index from available data has been selected. Median ROAA has been preferred to average ROAA due to its greater stability. Such choice is supported by the relatively small sample size and by the inability to rule out a selection bias from the data which results from frequent missing data about ROAA in the Bankscope database.

Figure 12. Kaplan-Meier estimates



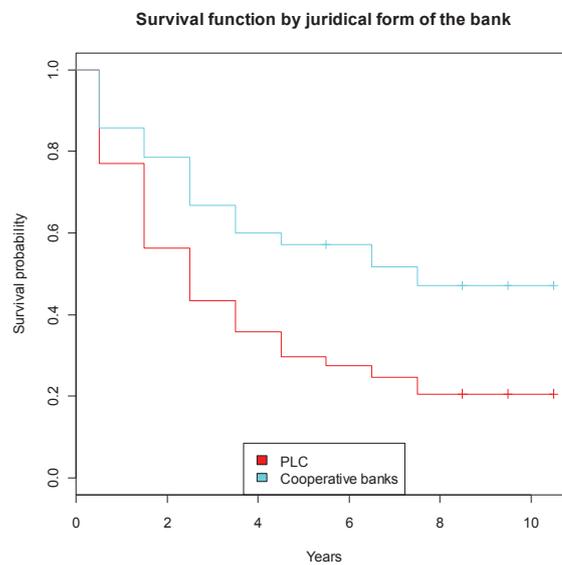
As shown in Figure 12, the Kaplan-Meier estimate of the survival function on the reduced sample shows a lower survival probability (and of course increased variability) compared to the full sample. Precisely, about one third of the positions considered lasted through the whole observation period.

Figure 13. By results in the last full year compared to median



An ROAA below the median in the last full year of the term is, as expected, linked to significantly lower survival probabilities. This result confirms that managers are indeed punished for under-performance.

Figure 14. Juridical form of the bank

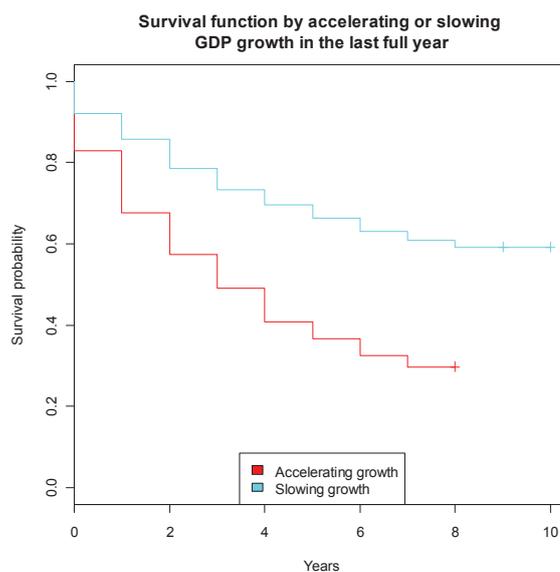


As already mentioned, people's banks (14 positions) were merged into the cooperative banks group (77 positions, for a total of 91 positions). Results are consistent with those from the larger sample, with survival probabilities for PLCs being significantly lower than for cooperative banks.

6. Does the business cycle have an impact on management turnover?

Additional research has been performed in order to test for the influence of the business cycle on management turnover, precisely on the frequency with which management turnover occurs. The main research question is the following: is the turnover of top managers in Italian banks influenced by the business cycle? The analysis has been run on the original dataset comprising 2,725 top management positions in Italian banks for the examined period. The idea to evaluate whether management turnover in Italian banks is related to a positive or a negative business cycle is derived from an insightful observation made by Boeri (2009), even though his arguments are mainly discussed with reference to the recent financial crisis. Boeri notes that during the first wave of the financial crisis (2007-2009), top managers in Italian banks focused on how to secure their positions instead of trying hard to solve problems resulting from the crisis and prevent (or limit at least) subsequent losses. Presumably, the deep entrenchment of the top managers prevented the owners from replacing them. Therefore, the aim here is to assess whether such a conservative attitude is limited to periods of crisis, as suggested by Boeri; or if, conversely, such an attitude is widespread among Italian top managers in the banking industry even during “normal” periods as the ones to which data in the present study refer to.

Figure 15. Kaplan-Meier estimates of the survival function



Data on Italian GDP for the years 1991-2003 has been obtained from a dataset provided by the Italian Statistical Office (ISTAT). Growth rates for the years 1992-2003 have been first calculated and then reclassified into a binary variable “accelerating/slowing growth”. Growth is accelerating if GDP growth is higher than in the previous years (1994-95, 1997, 1999 and 2000). Conversely, growth is slowing down if the rate is lower than in the previous years (1992-93, 1996, 1998, 2001-03). As the above figure shows, and rather contrary to expectations, years with slow growth lead to lower turnover rates.

Although on the basis of the above findings it is difficult to provide general conclusions, it is nonetheless sensible to argue that a rather conservative attitude is widespread among top managers serving in Italian banks. Therefore, not only are Boeri’s (2009) arguments and concerns on whether Italian customers should trust Italian bank managers during periods of financial distress substantiated; but criticisms should be further extended to the corporate governance and management practices in Italian banking. Here, some tentative explanations are provided that need further confirmation:

- a positive business cycle may lead to a positive outlook which grants the possibility to shift top managers. Instead, a negative business cycle leads to either a more conservative logic, or more caution in taking important decisions for the bank. The risk of carrying out wrong decisions and making substantial mistakes increases in periods of distress. Thus, a conservative logic tends to limit management turnover, as any changes in such periods are perceived of as risky and unnecessary. The need to preserve the *status quo* is stronger and, as a result, there are fewer cases of management turnover – whether they be voluntary or not;
- either an economic slow-down or a negative growth rate (often) translate into increasing business problems. This may provide bank managers with an “alibi” for the fact that their low performance results either from the negative outlook or from general negative business trends. Also, during negative business cycles it may be more difficult and inconvenient for a top manager to shift to another bank (voluntary turnover). This argument can be supported by the fact that Italian banking is, by comparison to other markets and economic activities, quite conservative;
- in practice, top managers may often be evaluated on the basis of their loyalty to owners and interest groups rather than on the basis of their performance.

These arguments need to be further tested and clarified. It is sensible to argue that they shall provide some food for thought for scholars and policy-makers alike.

7. Discussion and conclusions

Management turnover is a common tool for disciplining top managers in all types of banks. This paper has investigated management turnover in Italian banks from a survival analysis viewpoint. The study evaluates a risk typically faced by managers in banks, namely that of losing their position. The study shows that holding a top management position in a cooperative bank decreases the risk of leaving that position. By contrast, being a top manager in a bank with its headquarters located in southern Italian provinces increases such risk, as does serving in a non-CEO position.

Descriptive results and the regressions ran in this paper suggest the following: whereas age does not appear to be that significant in explaining management turnover in Italian banks (the parameter “age” is indeed quite insignificant), the most significant results are obtained with respect to position (CEO *vs.* non-CEO) and the juridical form of the bank. One may conclude that:

- the juridical (institutional) form of a bank is very important in explaining management turnover: in fact, managers in cooperative banks tend to stay in their position longer than in other banks, such as PLC banks;
- bank’s tradition and history influence management turnover and managerial practices (for instance, the turnover for top managers is lower in commercial banks with a past as savings banks);
- results suggest that among top managers, CEOs are in the most powerful position and that the position of CEO warrants the highest probability of survival. This is certainly one of the most interesting results from the present analysis;
- “generally”, descriptive results show that in Italian banks turnover is less frequent for managers with political connections and honorific titles (Knights of Labour; membership in the Italian Parliament).

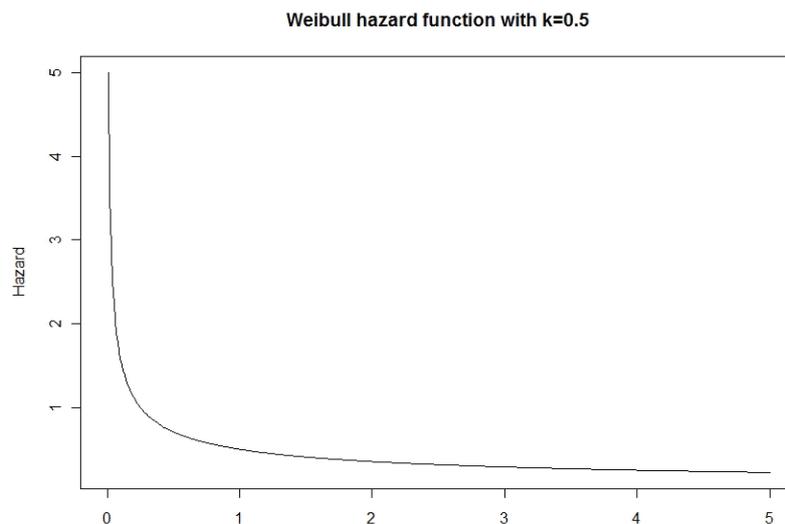
Furthermore, also with respect to bank performance, results show that survival probabilities for top managers in commercial banks are much lower than for cooperative banks. Such conclusions seem to confirm that selection mechanisms in Italian banks tend to differ as a result of a number of factors.

For instance, the institutional legacy of a bank tends to influence management turnover and thus the disciplinary mechanisms for top managers. This is confirmed by a higher degree of turnover for managers in PLCs which were formerly savings banks, compared to truly commercial ones. “Overall”, results tend to confirm the argument that, on the one hand, Italian cooperative banks (both *Banche popolari* and the *Banche di credito cooperativo*) are long-term oriented and have more stable managerial teams and boards even though often at the expense of bank performance (Ferri, Masciandro and Messori, 2001; Bongini and Ferri, 2007; Battistin *et al.*, 2012). On the other hand, due to their commercial business models, commercial banks seem to have stronger disciplinary mechanisms, which in part explains for the higher turnover of top managers in these banks.

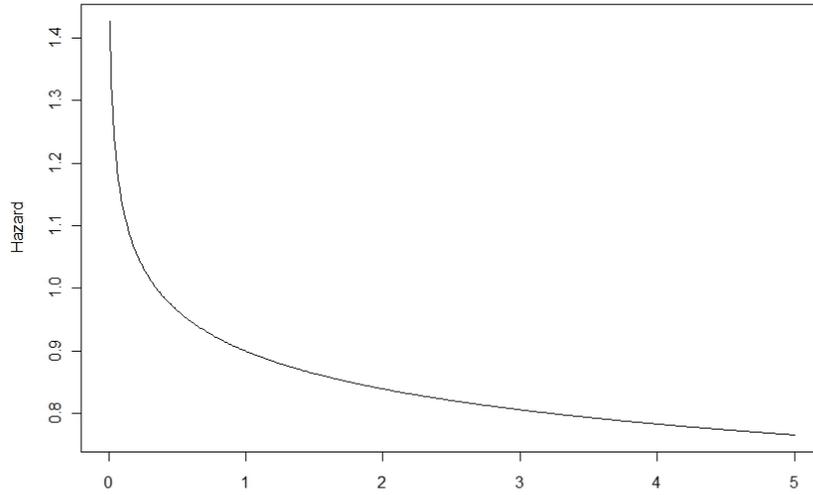
To conclude, although current results need to be further tested (it would be sensible to use some qualitative research method – such as interviews with top managers and major stakeholders – to support findings and obtain new insights), it is nonetheless difficult to disagree with the argument that governance in cooperative enterprises and banks is quite difficult to improve (Santella, 2001; Cornforth, 2004; Alexopoulos *et al.*, 2013). These problems seem to be rather relevant to the Italian banking market. Achieving good management is the key issue for improving such mechanisms and thereby further strengthening the well-known democratic governance in cooperative banks. The competitive advantages and social benefits that emerge from Italian cooperative and mutual banks need to be adequately accounted for (Stefancic, 2010). This, however, should not prevent from the provision of constructive critiques and feedback in order to solve problems, limit disadvantages, and improve their management and corporate governance.

Appendix

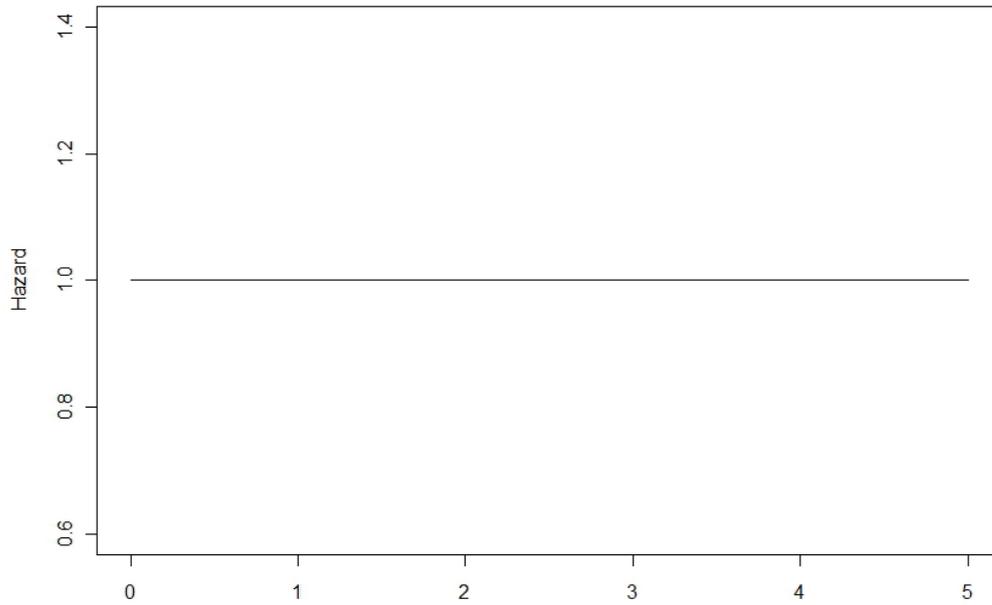
General Weibull hazard functions



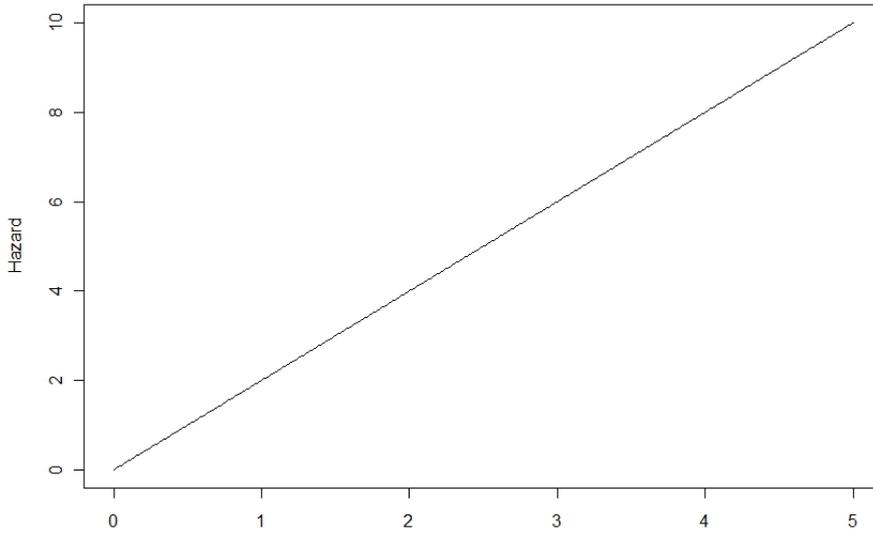
Weibull hazard function with $k=0.9$



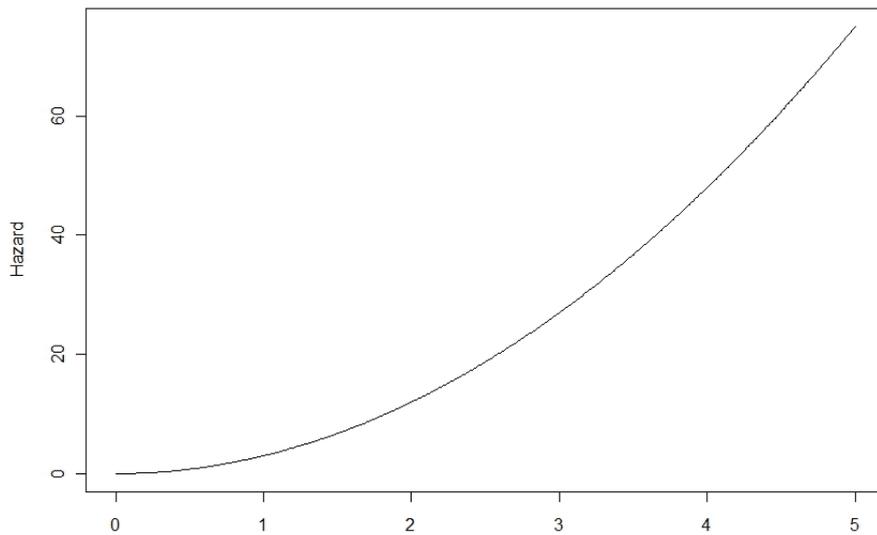
Weibull hazard function with $k=1.0$

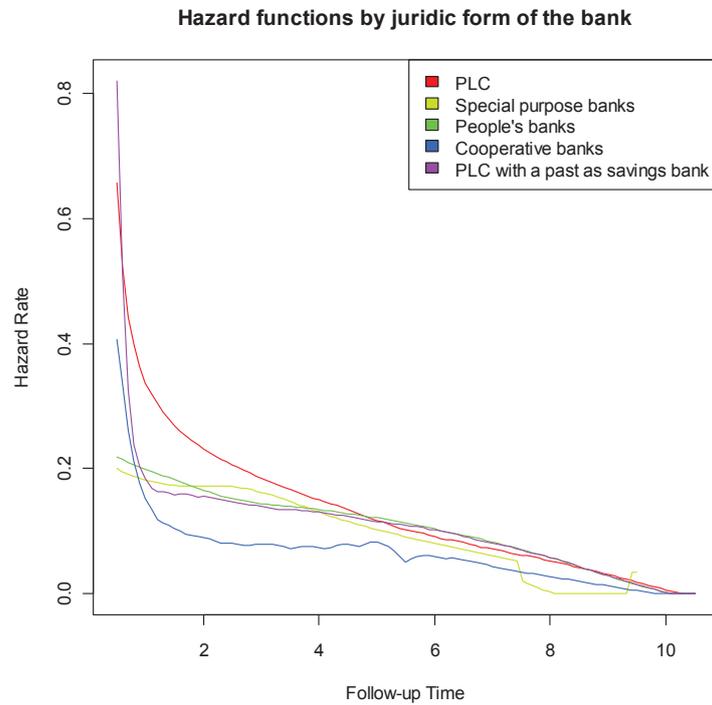


Weibull hazard function with $k=2.0$

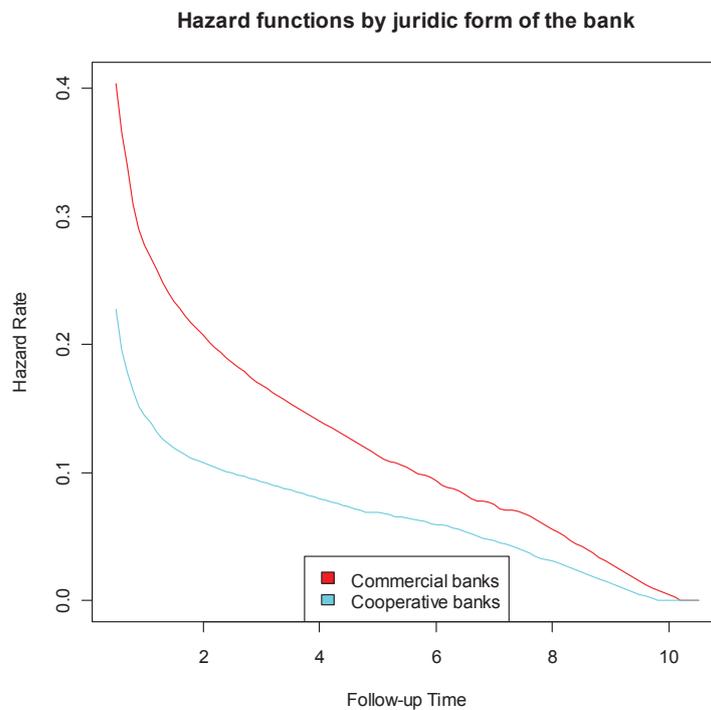


Weibull hazard function with $k=3.0$





Kernel estimates by juridic form confirm the Kaplan-Meier estimates and are consistent with the Weibull distribution.



The difference between the two main groups of banks is again quite clear.

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