

# The efficiency of the Italian preventive agreement: a legal, economic and organizational perspective

Italian  
preventive  
agreement

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## Abstract

**Purpose** – This paper aims to analyze the ex ante and ex post economic efficiency of the preventive agreement (concordato preventivo) or composition with creditors as defined by the Italian Bankruptcy Law. This study examines four possible outcomes of the procedure: homologation (confirmation); the degree of dissent/consent of creditors; the revocation, admissibility or inadmissibility; the declaration of the company bankruptcy in preventive agreement.

**Design/methodology/approach** – This paper uses data from 728 Italian companies which filed for preventive agreement in 2016. In reference to each of the four possible outcomes, this study applies nine logit regressions to analyze the effects of a series of efficiency variables ex ante (corporate-based drivers) and ex post (procedure-based drivers).

**Findings** – Results show the relevance of the debt structure, ownership structure and virtuous behavior, corporate governance and management systems, as well as effectivity of the court control on the preventive agreement outcome.

**Originality/value** – This paper draws on original data of bankruptcy in Italy and gives empirical evidence of the ex ante and ex post factors on the outcomes of the preventive agreement.

**Keywords** Bankruptcy, Preventive agreement, Ex ante efficiency, Ex post efficiency, Insolvency, Bankruptcy proceedings

**Paper type** Research paper

## 1. Introduction

Extant literature has studied the comparative efficiency of judicial and extrajudicial solutions to corporate crises (Blazy *et al.*, 2008; Berkovitch *et al.*, 1998; Rasmussen, 1998; Hashi, 1997). Contrarily to the more convenient, flexible and faster work-out solution, insolvency proceedings have been traditionally characterized by higher legal and professional costs, longer decision times, lower margins of discretion, and therefore less flexible options (Gilson, 1991). In recent years, financial and economic crises greatly contributed to rethinking the role of the state and the market in the resolution of corporate

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**JEL classification** – D23, K22, K41, L26

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distress (Varouj and Simiao, 2012). On the one hand, the spontaneous and extra judicial solutions may suffer from coordination failure and lead to inefficiency (Blazy and Chopard, 2012; Jostarndt and Sautner, 2010). Private restructuring agreements may have negative consequences for all parties involved if the turnaround attempt is abandoned and it ends up in the liquidation of the company. The actions taken during the out-of-court negotiations may be subject to avoidance proceedings and even criminal liability, becoming a deterrent factor, either for the debtor or for the creditors that are potentially willing to accept the proposed agreements or for potential new creditors with fresh money (Vener, 1987).

In Italy, the recent reforms of the bankruptcy law (BL) have followed similar paths [1]. With the recent changes introduced in 2012 (Law 83, 22 June 2012) and 2016 (Law 59, 3 May 2016), the preventive agreement was intended to facilitate the timely emergence from the crisis, before it turns into failure and leads to a state of insolvency (Danovi *et al.*, 2016). Despite the wide range of possibilities and the many forms of intervention, the deep innovation of the new preventive agreement lies in the possibility of restructuring the companies' activity that is able to value the company assets, in particular the intangible ones, continuing to produce economic value (James, 2016). The new preventive agreement (concordato preventivo) regulated by article 160 of the BL has produced significant results in easing the debtor position. Despite that, in some cases, the outcomes of the preventive agreement have resulted in being different from what it aims. For instance, Stefanel, a leading listed Italian company in the fashion industry, filed for a preventive agreement with no restructuring plan at the end of 2016. In September 2017 the plan was homologated by the court of Treviso, with a capital increase of 10m euro from two funds. Nevertheless, the crisis was not resolved and after a loss of 20.9m euro in the first nine months of 2018 and a decrease of net assets of almost 43.2%, the company filed again for preventive agreement without a plan. The request got homologated from the court in January 2019, but in June 2019 the company requested the conversion to liquidation under court administration, due to the failure of reaching an agreement with its creditors, as well as the current absence of other investors interested in supporting the company in fulfilling its plan, and therefore, the impossibility of restructuring its overall debt. The case of Stefanel shows that in spite of a favorable legal framework aiming at successfully restructuring debt, there are other characteristics that might influence the outcomes, making it of the essence to examine the determinants that influence the efficiency of the preventive agreement.

The economic efficiency of preventive agreements depends on the factors that directly or indirectly determine the costs that occur before and after the proclamation of the state of crisis. These factors, according to economic literature (Blazy and Chopard, 2012; Jostarndt and Sautner, 2010; Melcarne and Ramello, 2015), are connected to the ex ante inefficiency (agency costs – perquisites; non-optimal levels of investment or delay in filing for bankruptcy) and ex post inefficiency (due to misclassifications between continuity and liquidation; due to errors of underestimation of the economic value of debtor's assets; due to inequitable distribution of benefits among the debtor's creditors and direct costs of the procedure). For instance, as the preventive agreement is intended to facilitate the timely emergence of a crisis, we expect the procedure to be efficient if it attracts debtors which have good odds of resolving the crisis by means of a judicially protected procedure. The ex ante efficiency depends on the characteristics of companies that opt for the preventive agreement, with particular regard to the severity of the crisis, the own behavior and their governance and management features.

We use a novel data set based on a survey conducted by the most important Italian association of judges who are responsible for judicial management of corporate crises (*Osservatorio sulle Crisi di Impresa – OCI*) to empirically study the outcomes of the

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preventive agreement procedures on the basis of ex ante (corporate-based drivers) and ex post (procedures-based drivers) efficiency factors. The data set contains information on preventive agreements from 13 courts in two Italian regions, Tuscany and Puglia relevant for their insolvency state during the months of March-April 2016. A total of 728 forms of data were collected, of which about 83% came from Tuscany and the remaining from Puglia.

Based on existing literature (Cornelli and Felli, 1997; Blazy and Chopard, 2004; Cirmizi *et al.*, 2012; Djankov *et al.*, 2008; Succurro, 2012) the paper uses the ex ante and ex post efficiency concepts and analyzes the relation of the efficiency factors with four possible outcomes of the preventive agreement:

- (1) homologation (confirmation);
- (2) the degree of dissent/consent of creditors;
- (3) the revocation, admissibility or inadmissibility; and
- (4) the declaration of the company bankruptcy in preventive agreement.

The paper's findings have implications for all the stakeholders involved in corporate crisis (i.e. management, ownership, employees, courts, insolvency practitioners, banks and other creditors), providing a general framework for understanding the factors that determine the odds of success in corporate crisis resolution.

The paper is structured as follows: after a review of the literature, we describe the data derived from the survey in Section 2. Section 3 presents the research methodology and related analytical models compared to the four possible outcomes. For each of these outcomes, we assess the odds of a series of potential enabling conditions linked to the debtors' profiles and to the characteristics of the procedures. Finally, we discuss the results and their legal and economic implications in Section 4. Section 5 concludes the paper.

## 2. The economic rationality of the preventive agreement

The economic and management literature often treats the issue of corporate crisis separately from the judicial mechanisms or analyze it marginally, sometimes simply highlighting the advantages of the out-court solution as cheaper, faster and more flexible, and thus better suited to the needs of the debtor in crisis (Quagli and Danovi, 2012). At the international level, the recorded propensity of companies to undertake the out-court solutions has become significantly weaker in recent times (Donoher, 2004; Jostarndt and Sautner, 2010; Varouj and Simiao, 2012; Blazy *et al.*, 2013; Evans and Borders, 2014). This is due to the following factors:

- The out-of-court agreements may exasperate the consequences for all parties if eventually, it ends up in liquidation. The actions settled as part of the out-of-court agreement may be subject to revocation and even of suspected fraud attempt, becoming a deterrent either for the debtor or the existing creditors together with those who could provide fresh money (Vener, 1987);
- A continuous process of legal engineering and legal transplants results in the enlarged and diversified legal framework that regulates debtor-creditor settlements (Djankov *et al.*, 2008). The framework offers a large range of hybrid options and the company in distress selects the most appropriate solution to business characteristics and state of crisis passed by the company. Moreover, the insolvency frameworks have been "enriched" with provisions that are in favor of rehabilitation and continuation of distressed debtors' business, primarily to preserve the production of

economic value through the continuity of the company for the benefit of all stakeholders (employees, banks, suppliers, customers, local community and other creditors) and not only of the owners and claimholders (Armour and Frisby, 2001; Paletta, 2014); and

- The need to restructure tax-related debt is often one of the major impediments for successful corporate rescue (Hege, 2003). In Italy and in other jurisdictions, the “transaction tax” is permitted only in the distinct proceedings (the preventive agreement and the debt restructuring agreement). The windfall profits from the reduction of debts and sale of assets can lead to high tax burdens. By contrast, in Italy, the judicial management of the crisis gives a clear tax advantage compared to the other solutions because it allows the debtor not to tax the windfall profits.

In the presence of a full-blown crisis, the economic rationale of a preventive agreement procedure is related to problems of the coordination of collective action of the debtor with and among the creditors (Rasmussen, 1998; Franks and Loranth, 2013; Blazy *et al.*, 2008; Eger, 2001). An insolvency procedure plays a coordinating function of the creditors in the absence of which the undertaking’s crisis would be subject to a “non-cooperative game” that would lead to a reduction in the value of the assets distributed to creditors, and therefore to an inefficient overall result (Jackson, 1982; Berkovitch *et al.*, 1998). On the other hand, in the absence of a corporate crisis public law, the management would be inclined not to lose control of the firm and to opt for the restructuring even when this solution is less efficient than the clearance (Blazy and Chopard, 2012). Therefore, according to the economic literature, the preventive agreement constitutes the settlement mechanisms for the conflict of interest between subjects with different conveniences (Berkovitch and Israel, 1999). The efficiency conditions of the preventive agreement, as related to the objective of preserving the company assets and giving equal satisfaction to the interests at stake, can be appreciated in terms of reduction in direct and indirect bankruptcy costs. The economics literature analyzes the costs according to the different moments (Aghion *et al.*, 1992; Betker, 1997; Berkovitch *et al.*, 1998; Berkovitch and Israel, 1999; Ziliotti and Marchini, 2014):

- before the state of crisis has been declared (ex ante efficiency); and
- after the state of crisis has been declared through the start of the insolvency procedure (ex post efficiency).

### 2.1 Ex ante efficiency

The ex ante efficiency refers to the company’s behaviors induced by the bankruptcy law. These behaviors are generally classified as:

- agency costs related to the incentive for the ownership and management to increase the consumption of the so-called “additional benefits” (perquisites);
- the suboptimal levels of investment (under/over-investment); and
- the delay in filing for bankruptcy.

*2.1.1 Costs for “additional benefits.”* Agency costs are related to the punishment effect of bankruptcy. The more punitive consequences of the bankruptcy law, the greater will be the incentive for the management of the company *in bonis*, to reduce the “additional benefits” such as excessive personal expenses or deviation of corporate funds for personal purposes. The agency costs related to over consumption of “additional benefits” have been described by Aghion *et al.* (1992) with reference to Chapter 11 of the USA for which the authors

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acknowledge an excessively “soft” regulation and scarce incentives for the debtor to increase the effort to avoid the state of default. By contrast, in other legal systems such as the Italian, the legal consequences linked to conviction for fraudulent bankruptcy are considered too burdensome, for this reason, the debtor in crisis tends to take irrational economical decisions as long as not to suffer from the social shame of the declaration of bankruptcy (Mellahi and Wilkinson, 2004; Ucbasaran *et al.*, 2012).

*2.1.2 Non-optimal levels of investment.* Indeed, in the case of particularly punitive bankruptcy law, while it reduces the costs related to additional benefits, it may result in higher costs due to suboptimal levels of investment and delay in filing for bankruptcy. Hence, the strictly punitive nature of insolvency law may have behavioral consequences such as undertaking risky investments (Caprio, 1997; Blazy and Chopard, 2004). Very risky investments if successful will get very high returns and may avoid or delay bankruptcy. By contrast, in case of failure, they will generate additional indebtedness and negative consequences, especially for the company’s creditors. On the other hand, shareholders may not be available to underwrite new equity because the opportunity cost would be detrimental to a company that is going to fail compared to other investment alternates. Shareholders should share with creditors the economic value growth resulting from the company’s incremental return on investment made possible by the contribution of new equity. With a greater probability of insolvency, the shareholder benefits would have to be lower than the creditor ones (Wright *et al.*, 2007). At the same time, the punitive nature of the bankruptcy law could result in an over-cautious attitude-behavior (Efrat, 2006). The debtor could be induced to make a poor investment (underinvestment) in less risky assets. In this case, the indirect costs of the bankruptcy law are measurable through the expected value of the loss of profits associated with reliable and cost-effective investments that would be not, however, undertaken by a company that is going to fail.

*2.1.3 Delay in filing for bankruptcy.* The delay in filing for bankruptcy is related to the accumulation of losses, and therefore to the destruction of the enterprise value as a result of dilatory practices induced by the effect of punishing failure. The inefficiency arises from the fact that the debtor would be able to undertake benefits from information asymmetries with creditors and would be able, for a certain time, to conceal the state of crisis. In view of this and because of the fear of being declared bankrupt, there can be no adequate incentives to provoke a timely filing for bankruptcy (Donoher, 2004). Admission to the preventive agreement has the effect of allowing the debtor to maintain control of the company under court supervision. The bankruptcy reform in Italy allowed the debtor to access the courts even before the insolvency state [2]. These amendments are favorable to allow business continuity as they induce debtors to promptly initiate restructuring, therefore improving the expected outcome in terms of efficiency. Additional provisions laid down in Article 186-bis and other parts of the 2012 reform have a similar aim, offering the debtor the possibility to submit a “blank filing” (*concordato in bianco*) – through which a debtor can request protection without presenting a restructuring plan to obtain the court approval. In the context of ex ante efficiency, the aim was to “soften” the punitive nature of the insolvency law, reducing over- and under-investment costs. The amended law affects the sphere of options and conveniences of economic actors, offering the debtor and creditors a secure institutional environment (Paletta, 2015).

### *2.3 Ex post efficiency*

The ex post efficiency refers to the distinctive characteristics of a specific insolvency proceeding and to its ability to maximize the assets’ value and to distribute the estate in an equitable manner among the parties involved (Hashi, 1997; Succurro, 2012;

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Blazy and Chopard, 2004; Blazy *et al.*, 2008). After the commencement of the proceedings, the costs of the preventive agreement can be traced to the following:

- Misclassification between reorganization and liquidation;
- Errors of underestimation of the value of corporate assets;
- Unequal distribution of the estate among creditors; and
- Direct costs of the procedure.

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*2.3.1 Misclassification between reorganization and liquidation.* The management of the corporate crisis is efficient if it reduces the risk of unnecessary destruction of corporate value (Eger, 2001) and avoids liquidation of viable businesses. Given the importance of proper identification of the crisis scale, the preventive agreement procedures provide a number of mechanisms to reduce the risk of misclassification (White, 1994). The plan and the documentation accompanying the filing must be accompanied by a report sworn by a professional designated by the debtor, which also assumes specific responsibilities. Article 186a foresees that the plan must have a level of detail and technical sophistication to allow the practitioner to testify not only the accuracy of the information and the feasibility of the plan but also even to verify that the company's continuity is beneficial to the best interest of creditors or that they will achieve a better satisfaction than the alternates involving the liquidation of the company.

*2.3.2 Errors of underestimation of the value of corporate assets.* The quality of the plan reflects the economic efficiency of the judicial procedures and legal requirements on crisis management, as it reduces the risk of under/over valuation of corporate assets (Gilson *et al.*, 2000; Barthélémy *et al.*, 2009). The law foresees the certification of the plan from an insolvency practitioner (IP), as a safeguard mechanism intended to mitigate the asymmetric information. The IP certification is especially important in cases of "blank filing," which increases the risk of opportunistic behavior and legal abuses (Paletta, 2013). The court has the ability to appoint the IP, placing greater controls on the debtor's conduct and more disclosure requirements to ascertain the debtor's status [3].

*2.3.3 Unequal distribution of the estate among creditors.* The unequal distribution refers to the two principles of equal treatment of creditors and the absolute priority rule (Jackson, 1982; Blazy and Chopard, 2012). The first principle implies that the creditors of the same class have equal priority. The second implies that the value received from the liquidation of the assets will be distributed to the lower ranks only if and after all other creditors of the upper classes have been satisfied in full. Unlike unsecured creditors, the secured ones may not have any interest in a collective procedure, given their right to be immediately and fully satisfied, the preventive agreement provides an attenuation of their power of influence in the procedure. The plan might foresee a stay for the payment of creditors bearing privilege, lien or mortgage, until a year from the commencement of the proceedings, unless the plan provides the liquidation of the secured assets. If the collateral is not affected, the secured creditors have no voting rights on the preventive agreement.

*2.3.4 Direct costs of the procedure.* An important aspect of the preventive agreement's efficiency is related to its legal and professional costs, which entity determines the incentives for entrepreneurs in crisis to opt for out-of-court solutions. These are the expenses incurred before filing the request (in particular the consultant fees for the assistance on the submission of the application and the fees of the insolvency practitioners), the costs incurred after filing and necessary for the conduction of the procedure (ibid including the remuneration of insolvency practitioners) and other expenses related to the execution phase. The duration of the procedure impacts the costs of the preventive agreement. The individual

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procedures have a different degree of complexity that contributes to lengthening the duration of the procedures and consequently the absorption of administrative resources from the submission of the application until the end of the proceeding.

### 3. Research design

The aim of this article is to analyze the economic efficiency of preventive agreements, focusing on:

- ex ante efficiency conditions represented by incentives that the procedure creates in terms of the timely initiation, behavior of the management/ownership before the announcement of the state of crisis, corporate governance and management systems; and
- ex post efficiency conditions represented by both the direct costs of the procedure (case duration and legal professional costs) and the indirect costs determined from misclassification, inadequate valuation of the debtor's assets, inequitable distribution of proceeds among the company's creditors.

However, we should note that the data does not allow us to examine possible self-selection bias (Bris *et al.*, 2006).

The success of the preventive agreement is understood here as a positive outcome of the procedure according to the parameters defined by the new rules: the approval of the proposal by the creditors and the homologation thereof by the court. A basic principle is the importance of the direct relationship between debtor and creditors to facilitate negotiation about the solution to the crisis. Generally, the debtor proposes a certain solution and the creditors become arbiters of the outcome of the proposal. Therefore, currently, the outcome of the preventive agreement proposal depends on the management capabilities to obtain the consent of creditors that represent the majority of the value of the credits allowed to vote and whereas is expected the division into classes, if the majority also occurs in the greater number of classes.

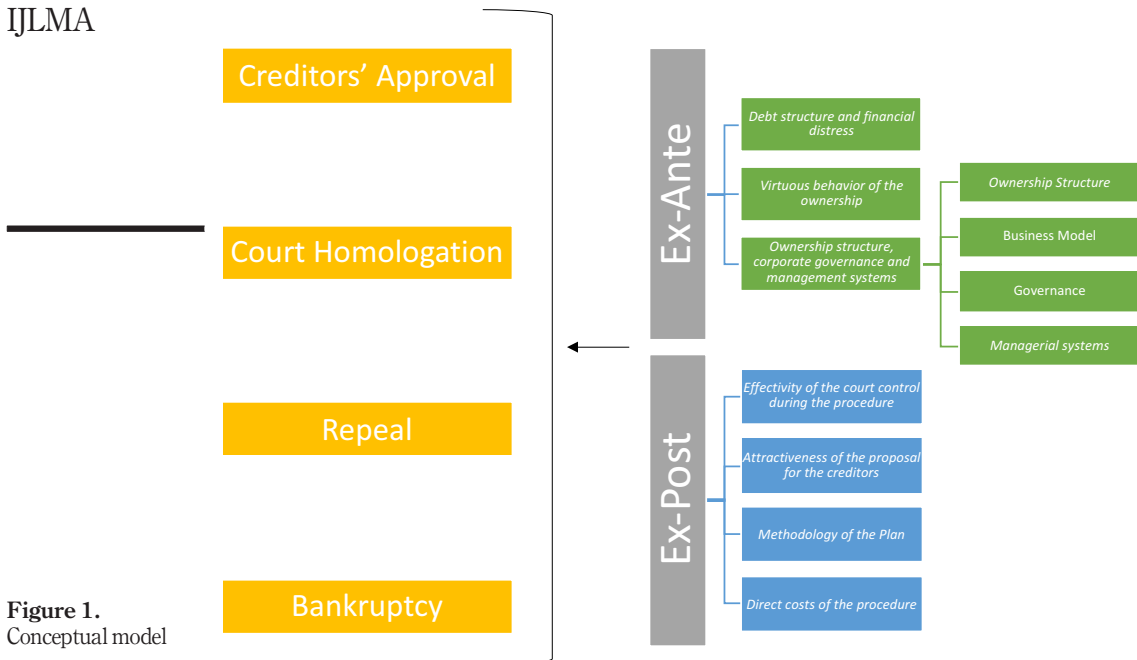
However, the final step to initiate the procedure is the homologation from the court, which after considering the economic and legal feasibility, can even take a different decision from that of the majority of creditors.

The possible creditors' degree of dissent on the proposal gives a significant indication of the management's ability to converge all stakeholder's interests. An objectively positive outcome of the agreement, approved by the creditors' majority and homologated by the court, can subjectively hide a high degree of the dissenting minority of creditors who have opposed the plan by vote. Therefore, another possible outcome of the preventive agreement is the rate of creditors' consensus.

Another possible outcome of the procedure might be the revocation, the impossibility to proceed, the inadmissibility. These outcomes are due to the continuous control of the court during the entire course of the procedure protecting both creditors and the general interest, avoiding breakdowns and fraudulent conduct.

A last possible outcome is the declaration of bankruptcy of the debtor which has made a request for preventive agreement. This can happen as a consequence of the third possible outcome (revocation, impossibility to proceed or inadmissibility) or due to the disapproval of the plan from the majority of the creditors or due to the court decision on the economic and legal non-feasibility.

Figure 1 presents the conceptual model of the effects of ex ante and ex post conditions on insolvency outcomes.



**Figure 1.**  
Conceptual model

### 3.1 *Ex ante* efficiency drivers

According to prior research (Gilson *et al.*, 1990; Claessens and Klapper, 2005; James, 2016), we expect that several characteristics of companies that propose the preventive agreement offer greater assurance to claimholders and signal that the proposed agreement represents a credible commitment by the debtor. Consequently, this increases the possibility that the plan will be approved by the creditors and the chances of a favorable outcome with respect to confirmation of the agreement by the court.

We identify three main drivers that are related to *ex ante* efficiency:

- (1) the timely initiation of the agreement and the debt structure;
- (2) the virtuous behavior of the ownership behavior; and
- (3) ownership structure, corporate governance and management systems.

These three company profiles represent possible drivers that preserve the value of the debtor. Therefore, we expect to have a positive relationship with the homologation of the preventive agreement and with the consent of the creditors, but a negative relationship with the revocation of the preventive agreement and bankruptcy.

**3.1.1 Timely initiation and the debt structure.** The timely initiation can be measured using predictive indicators of the insolvency of a company (Altman and Hotchkiss, 2006). The assumption that companies in years prior to the initiation of the preventive agreement show a state of reversible crises is more likely to pursue a legal procedure with a positive outcome. We use the “z score model” of Altman (Altman *et al.*, 2013), adapted to the reality of Italian SMEs. The debt structure can be a relevant factor for the outcome of the agreement not only in terms of leverage but also for the composition of the claimholders (Jostarndt and



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Sautner, 2010; Back, 2005; Eisdorfer, 2007; Tinoco and Wilson, 2013; Trahms *et al.*, 2013; Hege, 2003). In particular, we expect that when the structure of the debt is concentrated in the hands of a few creditors it is easier to reach an agreement (Bolton and Scharfstein, 1996). However, certain categories of debt (e.g. social security related), in practice give rise to disputes (Delaney, 1992). Finally, we look at the extent of the internationalization of the business model and the indebtedness to foreign creditors. The higher is the exposure to foreign creditors, the more difficult it is for the company to find a collective solution to the crisis (Paletta, 2015).

3.1.2 *Virtuous behavior of ownership behavior.* The virtuous behavior of the ownership, immediately preceding the filing refers to three main aspects:

- (1) changes in the composition of the administrative board;
- (2) generational succession during the period of crisis; and
- (3) financial contributions of the owners before the preventive agreement.

The changes in the ownership behavior are frequently indicated in the management literature as a necessary measure to prevent non-optimal solutions from the point of view of the investment and financing policies (Daily and Dalton, 1994; Maheshwari, 2000). Therefore, we expect that changes such as the appointment of new board members or changes related to family business succession are positively affecting the likelihood of success of the preventive agreement. Similarly, the financial support of the shareholders before the preventive agreement presents a signal of credible commitment and should be appreciated by the company's creditors, and thus positively linked to the outcome of the preventive agreement (Jostarndt and Sautner, 2010). In addition, rescue attempts by owners to impede bankruptcy by increasing their capital or informally extending a loan should have a positive effect on the outcome of the procedure, as the owners show a commitment to the rescue (Gelter, 2006).

The replacement of the key figures of the leadership is frequently mentioned in the literature as a precondition for timely initiation and solution of the company crisis (Bibeault, 1982; Slatter, 1984; Arogyaswamy *et al.*, 1995). The arguments are primarily related to the need to create a clear discontinuity with the old ways of managing the company that has proven to be dysfunctional and to change a business model. Banks, creditors, syndicates and other stakeholders expect a strong signal and may give their consent to a restructuring plan for the replacement of some key members of the top management team (TMT) (Slatter, 1984). Relatively homogeneous and cohesive TMT, that serves a long stay in the role can cause organizational inertia and stiffness in conditions of profound transformation of the environmental context (Wiersema and Bantel, 1992). The literature suggests that when organizations are faced with an external threat, as a crisis, the new managers tend to see the causes of the crisis as internal and controllable. Contrary, TMT with a long stay in the role tend to attribute the causes of the crisis to external, uncontrollable and temporary factors, ignoring the internal causes and helping to aggravate the problems (Mellahi and Wilkinson, 2004). Hambrick and D'Aveni (1988) have called this phenomenon "a spiral toward bankruptcy": the more you get closer to bankruptcy, the greater is the conservatism, resistance to change, centralization and bureaucratization, which in turn make it less effective responses to the crisis, forcing the company into a spiral of decline. To confirm these assumptions, empirical research shows that businesses in crisis are frequently interested in the change of chief executive officer and executive directors (Daily and Dalton, 1994; Sudarsanam and Lai, 2011; Lohrke *et al.*, 2004; Ozkan *et al.*, 2015), although this type of answer is less obvious than it might be expected, as homogeneous and long-running TMT

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have normally been able to build a solid foundation of power, making their replacement difficult (Leverty and Grace, 2012; Barker and Mone, 1994).

3.1.3 *Ownership structure, corporate governance and management systems.* A developed company profile from the point of view of the ownership structure, economic governance and management systems represents a potential resilience factor that may have an important role during a crisis (Fich and Slezak, 2007; Hasniza Haron *et al.*, 2013; Eckbo *et al.*, 2016; Chan *et al.*, 2016). To proxy the debtor's profile we use the following variables:

- administrative boards composition with particular regard to the presence of independent administrators;
- diffused presence of vigilance and control mechanisms (internal audit committees, risk management and compliance boards, syndicates committee, auditor); and
- management quality, detected through the presence of strategic planning systems, budgeting and management reporting, high standards of organizational structuring (hierarchical structure, job descriptions, operating procedures, quality certifications, safety and environment).

The attitude of managers could be rigid and conservative entrenching choices and usual ways of doing things may impede a thoughtful assessment of the distress and its roots. The role of the board is crucial to stimulate the management to focus on the causes and to take risks on new strategies to face it (Mellahi, 2005). In fact, the administrative and control boards may be the last line of defense against opportunistic behavior, bad decisions and serious omissions by the management. The trust actions' effectiveness depends both on the expertise and on the objectivity of the subjects who carry out their service within these bodies. In particular, the independence of members of the administration council, the presence of expert control bodies in administrative matters, finance and control present a factor of crisis prevention and timely implementation of turnaround strategies. The articulation of the organizational structure permits us to clearly assign responsibilities and reporting levels to segregate duties to manage potential conflicts of interest, to document the decision-making and operations processes, to monitor the compliance with the operating procedures as those that are relevant from the point of view of compliance with the laws and regulations relating to safety and the environment (Barker and Duhaime, 1997; Paletta and Alimehmeti, 2018). The developed management system is not only a condition for the timely initiation but also the effectiveness of management, itself constitutes an intangible asset that increases the value of the company. In these terms, we expect a positive relationship between these variables and the outcome of the procedure of preventive agreement.

### 3.2 *Ex post* efficiency drivers based on insolvency proceedings

*Ex post* efficiency drivers refer to the characteristics of the procedure reflected in the minimization of costs due to errors of classification between continuity and liquidation, errors of underestimation of the economic value of corporate assets, the direct procedure of excessive costs compared to the results of the preventive agreement. According to what has been mentioned above, we identified four drivers of *ex post* efficiency:

- (1) effectiveness of judicial control;
- (2) attractiveness of the proposal for the company's creditors;
- (3) quality and methodological rigor of the restructuring plan; and
- (4) legal and professional costs incurred during the different stages of the procedure.

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*3.2.1 Effectiveness of judicial control.* The effectiveness of judicial control is essential to avoid liquidating a company that has reasonable perspectives to produce income to a greater extent than the cost of the capital or otherwise allow the continuation of companies whose value is less than the net sum of the realizable values of the individual assets (Blazy *et al.*, 2008). The judicial review is relevant for assessing the equitable distribution among the company's creditors and to verify compliance with the creditors' priority and fairness of the voting process. The effectiveness of judicial review includes the main variables that under current legislation the preventive agreement combines to support the court in assessing the eligibility of the proposal and the legal feasibility of the preventive agreement:

- the type of preventive agreement proposed by a debtor, depending on whether the application for preventive agreement is accompanied by all the documents including the plan (or does not contain the plan, and thus make more difficult the judicial control of the procedure);
- the possible appointment of the court commissioner to perform monitoring functions over the entire procedure;
- the remarks and/or reservation notes expressed by the court commissioner with respect to the agreed plan presented by the debtor; and
- the activism of the court either to verify the correctness of the criteria for the formation of classes or in the authorization of acts of extraordinary administration.

The presence of the plan indicates possible integrity of the financial information provided by the debtor and consequently the possibility of a good outcome of the procedure (Camacho-Miñano and Campa, 2014)

*3.2.2 Attractiveness of the proposal.* The attractiveness of the proposal is directly related to the ability of the preventive agreement to provide a fair recovery of creditors, measured both in terms of the average percentage of unsecured creditors and based on the length of the schedule for the execution of the proposal (Gilson *et al.*, 2000). At the constant average rate and average time satisfaction of creditors, the outcome of the preventive agreement proposal is also affected by the number of the classes of creditors and the standard deviation of the treatment reserved for each class.

*3.2.3 Methodological aspects of the agreed plan.* We expect that the methodological aspects of the plan present one of the key ingredients necessary for the success of the proposal. The validity of information contained in the plan depends on the techniques used and the reasonableness of assumptions underlying the projections (Evans *et al.*, 2013). A rigorously compiled plan offers to the court and to creditors objective criteria to evaluate the advantages of continuity and liquidation and realistic estimations on the actual possibilities of recovery. Hence, a rigorous methodological approach increases the probability of success. The variables that proxy for the severity of the plan are based on the comprehensive analysis of the causes of the collapse, elaboration of sensitivity analysis, the detailed time schedule of receipts and payments, the involvement of external professionals with expertise in managing company crisis, the effective contribution of the professional that attests with remarks and/or reservations about the economic feasibility of the plan.

*3.2.4 Direct costs of the procedure.* Among the various categories of costs that have been detected are cost related to the compensation for the professionals that provide support to the debtor in the presentation of the proposal and in the preparation of the preventive agreement plan, as well as the fees paid to the appointed court commissioner and other auxiliary actors appointed by the judge. While the direct costs of the procedure are generally not significant in their absolute value they depend on the characteristics of companies and procedures.

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Therefore, in this study, costs were normalized with respect to the total assets, considering the cost for each procedure in the function of the average of the other procedures.

#### 4. Data, models and results

We use a pool of 728 companies that filed for preventive agreement procedures in two Italian regions: Puglia and Toscana. A survey was conducted through the Business Crisis Observatory (OCI), an Italian association of judges who are responsible for judicial management of corporate crises, to 13 courts of these two regions in 2016, right after the introduction of new changes of the BL in terms of the preventive agreement. The data were collected from the competent bankruptcy judges and court commissioners, which inputted information to 63 questions on the profile of the companies, the proposal of the preventive agreement, the plan and the procedures involved. In total, 18 forms did not contain information on the competent court, but they were included in the analysis, as the court location was not relevant to the study. The bankruptcy judges and court commissioners provided data they had at their disposal for each case filed during the aforementioned period. This allowed us to have rich data set on the companies' application for preventive agreement.

The survey included 63 questions on the:

- profile of the companies (16 questions on the legal status, industry, generational transfer, organizational structure, governing bodies, etc.);
- the actual state of the procedure (1 question on the registered dates of repeal, creditors' consent, homologation or bankruptcy. From this question, we derive four outcomes of the preventive agreement: repealed, in cases of inadmissibility by the court of the request for preventive agreement; creditors' approval – when creditors express their consent about the preventive agreement; court approval – homologation of the agreement by the court after the creditors' consent and declaration of bankruptcy of the company after the request for preventive agreement);
- the proposal of the preventive agreement (15 questions on blank filing, the presence of the monitor, assets and liabilities and other specifics);
- the debtors' request (6 questions on the type of request made by the debtor);
- the plan (16 questions on the quality of the plan, stress tests, cash flow analysis, external consultants, reports from the monitor or the external consultant, timing of implementation of the plan, etc.); and
- procedural costs (9 questions on the costs during the procedure for urgent operations, expenses for consultancy services, monitor, experts, etc.).

[Table 1](#) summarizes the variables extracted from the data set and used in the ex ante and ex post models. To measure the effects of ex ante and ex post determinants on the *repeal* (by the court), *homologation* (*approval by both the creditors and the court*), *creditors' consensus approval* of the *preventive agreement* and *bankruptcy*, we use *logit regressions*.

Furthermore, we use data from AIDA Bureau Van Dijk, to calculate the Altman z-score ([Altman et al., 2013](#)) for the last year before the date of the filing for the preventive agreement. The descriptive statistics are shown in [Table 2](#).

The companies which were investigated are generally small limited trade companies (57%), family businesses (75%), which operate mainly in Italy (99.7%). The data show different aspects of their debt, ownership structure, corporate governance but a particular and relevant aspect, which was identified is related to the timely emergence of the state of the crisis and the analysis of the managerial systems used by companies. This was captured in the following terms:

*Dependent variables*

Repealed by the court 1 if the procedure was repealed by the court; 0 otherwise	<i>repeal</i>
Plan homologated (confirmed) by court 1 if the procedure was confirmed by the court; 0 otherwise	<i>homologation</i>
Creditor's voting approval 1 if the creditors have approved the plan; 0 otherwise	<i>creditor_approval</i>
Subsequent bankruptcy 1 if the company filed for bankruptcy; 0 otherwise	<i>bankruptcy</i>

*Ex ante efficiency*

<b>Debt structure and financial distress</b>	
Altman z-score of the last year before filing	<i>z-score</i>
Leverage	<i>Leverage</i>
Share of debts to employees including social security contributions on total debts	<i>social_security_debts</i>
Total debts (is the logarithmic transformation of the total debts)	<i>total_debts</i>
Share of debts to banks on total debts	<i>banks_debts</i>
Share of debts to shareholders on total debts	<i>shareholders_debts</i>
<b>Virtuous behavior of the ownership</b>	
Changes in the governing body (1 if the body has been appointed for less than 3 years; 0 otherwise)	<i>changes_admin_body</i>
Generational Transition (1 if the crisis coincided with the transition of the second generation; 0 otherwise)	<i>generational_transition</i>
Fresh money from the owners before filing (1 if yes; 0 otherwise)	<i>owners_fresh_money</i>
<b>Ownership structure, corporate governance and management systems</b>	
<b>Ownership structure</b>	
Limited_liability (1 if the company has limited liability; 0 otherwise)	<i>sps_srl</i>
Family business (1 if the company is controlled by a family; 0 otherwise)	<i>family</i>
<b>Business model</b>	
Internationalization (1 if the company operates only in Italy; 0 otherwise)	<i>internationalization</i>
<b>Governance</b>	
Composition of the board of directors (1 if there are independent directors; 0 otherwise)	<i>independent_directors</i>
Control bodies (such as internal control committees, supervisory body, risk management, finance and audit body, internal auditing, board of auditors, external auditor) (1 if there is at least one control body; 0 otherwise)	<i>control_bodies</i>
<b>Managerial systems</b>	
Managerial systems executives: (1 if there are executives; 0 otherwise)	<i>executives</i>
Management structure: (1 if there is at least an executive board, chief executive officer, management divided by functions; 0 otherwise)	<i>management_structure</i>
Planning and control systems (1 if there is at least a strategic plan, budget, managerial accounting, interim financial statements, group financial statements, performance measurements; 0 otherwise)	<i>planning_control_systems</i>

(continued)

**Table 1.**  
Operationalization of  
variables

Organizational structure (1 if there is at least an organization chart, job descriptions, quality assurance certificates; 0 otherwise)	<i>organizational_structure</i>
External consultants (1 if the company does not give in outsourcing any of the finance, administration and control activities; 0 otherwise)	<i>external_consultants</i>
<i>Ex post efficiency</i>	
Effectivity of the court control during the procedure	
“Blank filing” ( <i>concordato in bianco</i> ) (1 if the debtor has used blank filing; 0 otherwise)	<i>blank_filing</i>
Monitoring administrator (1 if the court has appointed a monitor; 0 otherwise)	<i>monitoring_administrator</i>
Comments or reservations expressed by the monitor (1 if the monitor has expressed comments or reservations; 0 otherwise)	<i>monitor_comments_reservations</i>
Interventions of the court on the class formation criteria (1 if the court has requested to modify the creditors’ classes; 0 otherwise)	<i>court_class_intervention</i>
Court authorization to carry out extraordinary activities (1 if yes; 0 otherwise)	<i>court_authorization_extraordinary</i>
Attractiveness of the proposal for the creditors	
Satisfaction of the subordinated creditors ( <i>percentage of the satisfaction of the subordinated creditors</i> )	<i>satisfaction_subordinated</i>
Number of classes (1 if the plan foresees the division of creditors in classes; 0 otherwise)	<i>classes_division</i>
Different treatments between creditors belonging to different classes (1 if yes; 0 otherwise)	<i>different_treatment_classes</i>
Timing for the execution of the proposal (1 if up to three years; 0 if more than three years)	<i>plan_execution_timing</i>
Methodology of the plan	
Court requested changes for the formation of classes (1 if yes; 0 otherwise)	<i>court_changes_classes</i>
Use of external consultants (1 if yes; 0 otherwise)	<i>plan_external_consultants</i>
Analysis of the causes and circumstances of the financial distress (1 if it was fairly done or very detailed and exhaustive; 0 otherwise)	<i>plan_analysis_distress</i>
Sensitivity and stress tests (1 if yes; 0 otherwise)	<i>plan_stress_tests</i>
Analysis of the cash flow (1 if yes; 0 otherwise)	<i>plan_cash_flow</i>
Participation of the professional expert (1 if yes; 0 otherwise)	<i>plan_professional_expert</i>
Sensitivity and stress tests from the professional expert (1 if yes; 0 otherwise)	<i>plan_stress_tests_professional</i>
Comments and/or reservations expressed by the professional expert (1 if yes; 0 otherwise)	<i>plan_professional_comments-reservations</i>
Direct costs of the procedure	
Procedural costs (is the logarithmic transformation of the procedural costs)	<i>procedural_costs</i>

Table 1.

- the degree of use of managerial systems considered as an evolution of the organizational functions of the company; and
- the development of the administration, finance and control function.

Regarding the first one, several managerial systems were investigated such as the use of a strategic plan, adoption of operational programs and master budget, a managerial

<i>Variable</i>	<i>Obs</i>	<i>Mean</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
<i>Repeal</i>	771	0.22	0.41	0.00	1.00
<i>Creditor approval</i>	771	0.41	0.49	0.00	1.00
<i>Homologation</i>	771	0.37	0.48	0.00	1.00
<i>Bankruptcy</i>	771	0.26	0.44	0.00	1.00
<i>log (total debt)</i>	383	8.02	1.30	1.75	11.88
<i>z-score</i>	551	-21.48	168.71	-3574.53	6.51
<i>Leverage</i>	474	4.08	56.69	-289.70	978.46
<i>Banks debt share</i>	383	0.56	0.26	0.00	1.00
<i>Social security debts share</i>	383	0.04	0.06	0.00	0.51
<i>changes_admin_body</i>	771	0.42	0.49	0.00	1.00
<i>generational transition</i>	771	0.09	0.29	0.00	1.00
<i>owners_fresh_money</i>	771	0.12	0.33	0.00	1.00
<i>spa_srl (llc)</i>	610	0.13	0.34	0.00	1.00
<i>internationalization</i>	771	0.96	0.21	0.00	1.00
<i>family</i>	771	0.33	0.47	0.00	1.00
<i>independent_directors</i>	771	0.16	0.37	0.00	1.00
<i>control_bodies</i>	771	0.32	0.47	0.00	1.00
<i>executives</i>	771	0.08	0.27	0.00	1.00
<i>management_structure</i>	771	0.27	0.44	0.00	1.00
<i>planning_control_systems</i>	771	0.46	0.50	0.00	1.00
<i>organizational_structure</i>	771	0.27	0.44	0.00	1.00
<i>external_consultants</i>	771	0.09	0.28	0.00	1.00
<i>monitoring_administrator</i>	771	0.72	0.45	0.00	1.00
<i>Blank filing</i>	771	0.71	0.45	0.00	1.00
<i>court_authorization_extraordinary</i>	771	0.16	0.37	0.00	1.00
<i>court_class_intervention</i>	771	0.28	0.17	0.00	1.00
<i>satisfaction_subordinated</i>	771	0.67	0.47	0.00	1.00
<i>classes_division</i>	771	0.24	0.43	0.00	1.00
<i>number_classes</i>	202	3.83	3.81	0.00	51.00
<i>different_treatment_classes</i>	771	0.23	0.42	0.00	1.00
<i>plan_execution_timing</i>	444	0.61	0.49	0.00	1.00
<i>plan_external_consultants</i>	771	0.09	0.28	0.00	1.00
<i>plan_analysis_distress</i>	771	0.56	0.50	0.00	1.00
<i>plan_stress_tests</i>	771	0.14	0.35	0.00	1.00
<i>plan_cash_flow</i>	771	0.33	0.47	0.00	1.00
<i>plan_professional_expert</i>	771	0.14	0.35	0.00	1.00
<i>plan_stess_tests_professional</i>	771	0.15	0.36	0.00	1.00
<i>plan_professional_comments-reserves</i>	771	0.53	0.50	0.00	1.00
<i>monitor_comments_reserves</i>	771	0.18	0.39	0.00	1.00
<i>log (procedural costs)</i>	340	11.23	1.82	2.73	15.68

**Table 2.** Descriptive statistics

accounting system, interim financial statements, consolidated financial statements as well as the presence of a performance measurement system (Figure 2).

The data show an interesting pattern in line with the assumptions of managerial theories. In particular, companies equipped with managerial tools are in principle endowed with greater rationality of management processes, therefore it is expected that these companies are in a position to design a recovery process or in any case to envisage plans for safeguarding their business.

These considerations are confirmed from the analysis of the development of the administration, finance and control function. In this case, the interest is aimed at the breadth of the functions performed and their organizational specialization through the supervision of

the specific sub-functions by a dedicated manager figure within the company. In general, also with regard to this aspect, there is a lower number of companies in liquidation with the administration, finance and control function (Chart 1). This confirms the role of the managerial systems in the preventive agreement.

Regarding the governance characteristics, the companies involved in the study show a low level of presence of controlling bodies such as internal control committees, supervisory body, risk management, finance and audit body, internal auditing, board of auditors, external auditor (32%), independent directors (16%) and even fewer executives (8%). On the other hand, the introduction of fresh money why it is not very common (12% of the total cases), it is mainly noted in the cases of successful preventive agreements: 65% of the cases with fresh money, have a successful outcome. This confirms the significance of such actions from the owners in terms of trust with the creditors and on the plan.

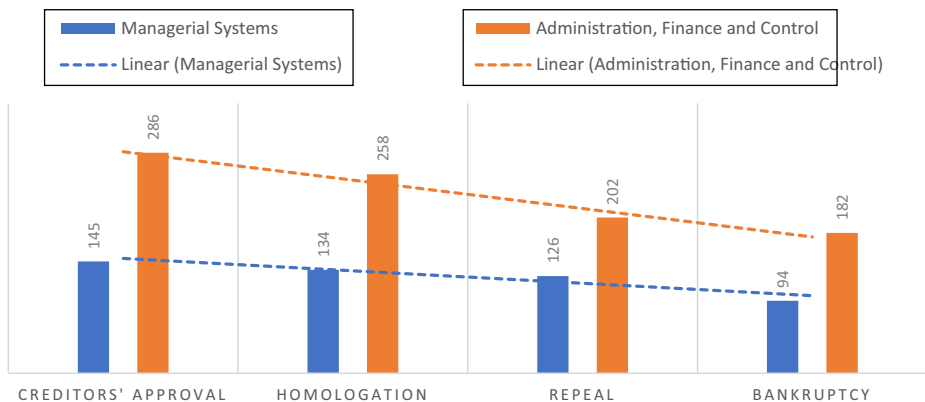
In addition to this important evidence regarding the ownership and managerial structure of companies, other important issues are related to the state of crisis, where importance is given to effectivity of the court control during the procedure, the methodology of the plan and other ex post measures. In fact, a high number of filings were presented without a plan (around 72%), which seems to have pushed the court in adopting more cautious mechanisms such as the appointment of monitoring administrators.

The satisfaction of subordinated creditors is relatively high (67%) even though the division of classes is not usually mentioned in the plans (24% of cases). The last is related to the methodology of the plan which is key to the success of the proposal. Despite the fact that usually, companies do not use external consultants for the plan (9% of the cases when the plan is proposed), usually, it is supplemented with an analysis of the causes and circumstances of the financial distress (56% of the cases where the plan is proposed) or sensitivity and stress analyzes (with the inclusion of risk factors) to verify the sustainability of the proposal (14% of the cases when the plan is proposed).

The following section discusses these factors in terms of relationship to the procedure outcomes by using an inferential approach.

#### 4.1 Results of ex ante and ex post models

The results of the ex ante and ex post regressions are shown in [Tables 3](#) and [4](#), where we report the odds ratios and the statistical significance. Panel A, shows the effects of the debt structure and the intensity of financial distress on the outcome of the procedure. Z-score



**Figure 2.**  
The frequency of use of managerial tools and administration, finance and control function by the procedural outcome



Variables	Ex ante results			Panel B: Virtuous behavior of the ownership		
	Panel A: Timely emergence of the state of crisis and debt structure			Creditors'		
	Repeal	Homologation	Bankruptcy	Repeal	Homologation	Bankruptcy
z-score	0.00	0.00	-0.00			
Leverage	0.001	0.00	-0.00			
social_security_debts	-0.24	-4.33*	2.66			
banks_debt	0.10	0.11	-0.81			
ln_tot_debt	-0.40**	0.06	-0.02			
Changes_admin_body				-0.224	0.272	0.122
Generational_transition				-1.48**	0.85**	0.85**
Owners_fresh_money				-1.33**	1.467*	0.304
spa_srl						
Internationalization						
family						
Independent_directors						
Control_bodies						
Executives						
management_structure						
Planning_control_systems						
Organizational_structure						
External_consultants						
Number_of_Observations	347	356	362	753	761	765
Pseudo R <sup>2</sup>	0.07	0.03	0.06	0.06	0.04	0.04
AIC	351	491	422	774	994	1025
BIC	404	553	492	843	1073	1109

**Notes:** \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; and \* $p < 0.1$ . Robust standard errors are estimated. All regressions include sector fixed effects; italic data significant values at least at  $p < 0.10$  level

(continued)

**Table 3.**  
Logit results for ex ante determinants of procedural outcomes

Italian preventive agreement

Table 3.

Variables	Ex ante results				Panel D: Comprehensive model					
	Panel C: Ownership structure, corporate governance and management systems		Creditors' consensus		Homologation		Creditors' consensus		Bankruptcy	
z-score										
Leverage	-0.306	-0.393	0.0350	0.279	-0.0004	-0.0006	-0.012	-0.008		
social_security_debits	-2.50***	1.517*	2.828**	-0.523	0.0032	0.0028	-0.007	-0.0009		
banks_debt	-0.371	0.0903	-0.0443	-0.194	-0.634	-5.39**	-3.80*	2.170		
ln_tot_debt	0.391	0.109	0.202	0.368	-0.337	0.298	0.0305	-1.030		
Changes_admin_body	-0.0017	1.588*	1.518*	0.0162	-0.194	0.199	0.175	0.155		
Generational transition	-1.403**	0.251	0.0643	-0.406	-1.792	0.769	0.560	-0.428		
Owners_fresh_money	0.891**	-0.548*	-0.738**	0.424	-2.569*	0.184	0.526	-0.537		
spa_srl	-0.0501	0.198	0.258	0.189	-0.689	-0.707	-0.161	0.187		
Internationalization	-1.17***	0.415	0.596**	-0.097	-2.79***	0	0	-0.20		
family	-0.243	0.0925	-0.396	-0.043	0.0985	-0.0709	-0.069	-0.16		
Independent_directors	0.891**	-0.548*	-0.738**	0.424	0.603	-0.0224	0.143	0.767*		
Control_bodies	0.891**	-0.548*	-0.738**	0.424	0.517	0.614	0.613	0.0686		
Executives	0.891**	-0.548*	-0.738**	0.424	-2.342	1.208*	0.915	-0.878		
management_structure	0.891**	-0.548*	-0.738**	0.424	0.956*	-0.467	-0.439	0.641		
Planning_control_systems	-0.0501	0.198	0.258	0.189	-0.159	0.139	0.300	0.375		
Organizational_structure	-1.17***	0.415	0.596**	-0.097	-1.17**	0.371	0.0979	-0.169		
External_consultants	0.891**	-0.548*	-0.738**	0.424	-0.011	-0.222	-0.438	-0.0197		
Number_of_Observations	597	600	603	607	-0.0004	-0.0006	-0.012	-0.008		
Pseudo R <sup>2</sup>	0.15	0.06	0.08	0.03	331	334	336	340		
AIC	568	792	795	723	307	469	476	411		
BIC	665	888	897	829	406	572	583	526		

Variables	Panel E: Effectiveness of the court control during the procedure				Panel F: Attractiveness of the proposal for the creditors'				Panel G: Methodology of the plan			
	Repeal	Homologation	Creditors' Consensus	Bankruptcy	Repeal	Homologation	Creditors' consensus	Bankruptcy	Repeal	Homologation	Creditors' consensus	Bankruptcy
Monitoring_administrator	-2.099***	2.777***	2.764***	-0.348								
blank_filing	0.801	-0.51**	-0.383	0.197								
Court_changes_classes	-1.039	0.358	0.757***	0.332								
Court_authorization_extraordinary	-0.934*	1.410***	1.110***	-0.949***	0.193	0.0518	-0.547	1.538				
Satisfaction_subordinated					-0.876	0.364	0.251	0.439				
Classes_division					0.0834**	-0.0698	-0.0316	0.0651*				
Number_classes					-0.0742	-0.478	-0.862	0.268				
Different_treatment_classes					0.449	0.431	0.199	0.504				
Plan_execution_timing									-0.012	0.304	-0.0855	-0.012
Plan_external_consultants									-0.778***	1.869***	1.460***	-0.778***
Plan_analysis_distress									-0.718	0.581	0.283	-0.718
Plan_stress_tests									-0.441	0.584**	0.673**	-0.441
Plan_cash_flow									0.101	0.192	-0.273	0.101
Plan_professional_expert									-0.552	-0.094	0.0238	-0.552
Plan_stress_tests_professional									0.530*	0.453*	1.025***	0.530*
Plan_professional_comments-reserves									-0.928**	1.035***	0.613*	-0.928**
Monitor_comments_reserves												
Procedural_costs												
Number_of_observations	753	761	765	765	148	156	151	142	753	761	765	765
<i>Psuedo</i> R <sup>2</sup>	0.21	0.23	0.22	0.04	0.09	0.04	0.03	0.08	0.20	0.27	0.25	0.09
AIC	656	806	837	875	133	227	206	143	670	773	817	843
BIC	735	889	925	959	169	270	243	173	768	875	924	949

**Notes:** \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$ . Robust standard errors are estimated. All regressions include sector fixed effects; italic data significant values at least at  $p < 0.10$  level

(continued)

Italian preventive agreement

**Table 4.**  
Logit results for ex post determinants of restructuring

Table 4.

Variables	Panel H: Procedural costs			Panel I: Ex post comprehensive model			
	Repeal	Homologation	Creditors' consensus	Repeal	Homologation	Creditors' consensus	Bankruptcy
Monitoring_administrator				-35.44**	2.738*	1.007	-3.218*
blank_filing				2.012	-1.013	-0.247	0.965
Court_changes_classes				-2.190	0.121	-0.136	0.215
Court_authorization_extraordinary				-0.579	-0.085	-0.109	2.149
Satisfaction_subordinated				21.53***	0.008	-0.663	2.160
Classes_division				-0.931	-0.102	0.0580	-0.0230
Number_classes				-5.225**	-0.153	-1.579	-0.103
Different_treatment_classes				-0.258	-0.0180	-0.00599	-0.308
Plan_execution_timing				0	-1.224	0.162	1.466
Plan_external_consultants				-2.266	0.729	-0.255	-1.198
Plan_analysis_distress				0	0.0841	-0.742	0.483
Plan_stress_tests				-4.794	0.361	0.746	-1.290
Plan_cash_flow				-28.44**	0.601	-0.466	-1.339
Plan_professional_expert				-0.989	0.885	0.784	-1.843*
Plan_stress_tests_professional				2.744	-0.257	0.630	0.331
Plan_professional_comments-reserves				0.774	-0.362	0.470	-0.0693
Monitor_comments_reserves				-0.119	0.00874	0.0588	0.127
Procedural_costs	-0.257**	1.150*	0.0779	-35.44**	2.738*	1.007	-3.218*
Number_of_observations	315	335	335	68	99	93	93
Pseudo R <sup>2</sup>	0.09	0.04	0.03	0.44	0.16	0.09	0.28
AIC	210	457	443	73	155	143	109
BIC	248	510	496	115	217	199	165

does not prove to be a significant determinant of the outcome of the preventive agreement. That might be linked to the fact that almost all of 551 companies where z-score has been calculated are under the cutoff of the “safe zone.” A higher share of social security-related debts (*social\_security\_debt*), lowers the probability of getting the homologation from the court by 4.3 times. The same trend is shown for the creditor’s approval, but not significant (less 3.3 times). On the other hand, the total debt (*log*), lowers the probability of getting a repeal (less likely than 1.4). While it can be expected that higher debts might have no effect on repeal, but on creditors’ consensus, this result might be due to the fact that higher debt structure can be deemed as normal during insolvency, thus with a positive effect on not getting repeal.

Panel B shows the effects of governance determinants on each of the procedural outcomes. The generational succession – the transition of ownership (*generational\_transition*), proves to be a very good determinant of the procedural outcome. When the crisis happens during a second-generation transfer of ownership, the odds of repeal, homologation and creditors’ consensus are lower by 1.48 times and by 0.15 times. In cases where the shareholders have increased their capital or provided a loan to avoid the crisis (*owners\_fresh\_money*) the chances of getting homologation improve significantly (1.4 times) while lowering the repeal chances by more than 1.33 times.

Panel C shows the relation of companies’ characteristics to the procedural outcome. The companies operating only in Italy have better chances of getting approved with an increase of odds of almost 2.8 times for the creditors to favorably vote the plan and 1.5 times to get homologation, therefore the approval of both creditors and the court, while lowering significantly the odds of getting a repeal by almost 2.5 times. The reasoning could be the lower number of creditors and their concentration within certain areas. International companies might be more complex cases and thereby, less likely for their preventive agreement to be approved. While the family ownership (*family*) and board independence (*independent\_directors*) are not statistically significant. The non-significance of the board’s independence might be due to the fact that we measure the presence of any independent director, while it does not assure the full independence of the board itself.

The presence of other control bodies (*control\_bodies*) improves significantly the chances of homologation and positive creditor’s voting (1.5 times in both cases). In addition, the presence of management levels (executives), lowers the odds of repeal by 1.4 times. The presence of planning and control systems (*planning\_control\_systems*) does not affect the outcome of the procedure, while a clear organizational structure (*organizational\_structure*) shows that the presence of organizational charts, job descriptions, internal procedures, quality and environmental assurance, lowers the odds of repeal by 1.17 times and decreases the odds of favorable voting by 0.4 times. The same can be said for management structure, where the presence of managerial structure while lowers the likelihood of getting repealed (0.10 times), it creates an adverse effect on homologation and creditors’ consensus lowering the odds by 1.54 and 1.73 times for each. It seems that well-structured companies are not trustworthy for both creditors and the court. The presence of external consultants (*external\_consultants*) shows no statistically significant relation to the outcome of the procedure, despite the relevance they have in assuring the feasibility of the plan.

Panel D presents a comprehensive model. While some of the aforementioned determinants are not statistically significant in this model, most have the same relation with the procedural outcomes. For instance, social security debts maintain the initial trend of lowering the odds of getting homologated or having creditors’ consensus. The second generational transition (*generational\_transition*) shows to have a negative effect on the odds

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of repeal lowering it by 3.5 times. The same can be said for limited liabilities companies, which have lower odds of getting repealed by 3.79 times.

The presence of executives and planning and control systems lowers the odds of getting a repeal by 0.10 and 2.17 times. This confirms the role of good organizational and management structures in presenting a faithful representation of the actual state of the company while filing for preventive agreement.

Panel E represents the logit results of the effectiveness of the court's control during the procedure. The appointment of a monitor (`monitoring_administrator`) lowers the odds of repeal by 3 times while improving significantly the homologation and creditor's voting (more than 2.7 times each). If the debtor has not presented a plan simultaneously with the request for preventive agreement (blank filing), it influences the odds of homologation or creditors' consensus decrease by almost 1.5 times.

The authorization of the court with respect to turnaround activities of the debtor (`court_authorization_extraordinary`) is a good determinant of the outcome. If the debtor has been authorized to have access to fresh money, pay some relevant creditors, sign new contracts, etc., improves the odds of getting homologation or creditors' consensus (1.4 and 1.1 times) and lowers the risk of bankruptcy and repeal by almost 5%.

Panel F presents the effects of the attractiveness of the proposal for the creditors on the procedural outcomes. While generally there are no significant determinants in relation to the procedures, the number of classes (`number_classes`) influences the outcome. An increase in the number of classes decreases the odds of getting a repeal and going bankrupt increase by almost 1 time. This might be due to the precision of determination of the number of classes.

Panel G presents the relationships between the defined methodological determinants drivers and the procedural outcomes. The presence of experts (`plan_external_consultants`) during the formation of the plan does not prove to be statistically significant for the outcome, while the analysis of the causes of the financial distress (`plan_analysis_distress`) is. A thorough analysis decreases the odds of repeal and bankruptcy by 23% for both and increases the odds of homologation and creditors' consensus by 1.8 and 1.4 times. This might be due to the fact that analysis reduces the informational asymmetry between the debtor and the creditors or the court and creates a more trustful plan.

The same can be said for sensitivity analysis (`plan_stress_tests`) and the determination of precise timing for the payment of the claims (`plan_cash_flow`). While the sensitivity analysis is not significant, the specification of cash flows during the preventive agreement lowers the odds of homologation and creditors' consensus by almost 0.4 and 0.3 times. This might be due to discussions and disagreements that might arise on specific terms. A similar result is achievable when the external professional includes comments/observations on the plan (`plan_professional_comments_reserves`). While the presence of the comments lowers the risk of getting repeal almost 0.5 times, it lowers the odds of homologation by the same amount, while it seems it does not affect creditors' consensus (the odds are almost 1). The same can be said for the monitor comments/reserves on the plan (`monitor_comments_reserves`). The presence of the monitor reserves on the plan lowers the risk of repeal and bankruptcy by 0.10 and has no effect on homologation itself, but it influences the creditors' consensus lowering the odds by 0.4 times.

Panel G represents the effects of the costs (`procedural_costs`) on the procedural outcome. Companies incurring higher costs show to benefit in lowering the odds of repeal and bankruptcy by almost 1.2 and 0.84 times. This is due to the fact that these costs include expenses for external consultants and other investments to improve the quality of the plan and the preventive agreement request. While it does not influence the creditors' consensus, it

increases the odds of homologation by 0.85 times, as the presence of high costs, might be related to complex cases and disagreement on the consent by the creditors.

Panel H presents the comprehensive ex post model. The results confirm the significance of certain determinants such as the presence of the monitor (*monitoring\_administrator*) which lowers significantly the risk of repeal and bankruptcy (almost by 35 and 3 times each) while improving the odds of homologation (2.7 times).

The percentage of satisfaction of subordinated creditors (*satisfaction\_subordinated*) is an important determinant of the repeal, by increasing its odds almost 21 times. The higher the number of classes (*number\_classes*) fewer odds to get repealed (almost 5 times fewer odds). This might be due to the precision of determination of the number of classes.

The presence of the cash flow in the plan lowers the odds of repeal by 28 times. This is consistent with the assumption that higher quality of the plan leads to a reasoned request for preventive agreement and better odds of getting approved.

Higher procedural costs associated mostly with the costs incurred during the preparation of the plan, lower the risk of repeal (35 times) and bankruptcy (3 times), while it increases the odds of homologation by 2.7 times.

## 5. Conclusions

The article analyzes the conditions of economic efficiency ex ante and ex post of the preventive agreement drawing four possible outcomes of the procedure:

- (1) homologation of the preventive agreement;
- (2) the degree of dissent/consent of creditors on the preventive agreement;
- (3) the revocation, admissibility or inadmissibility of the preventive agreement; and
- (4) the declaration of the company bankruptcy in preventive agreement.

We follow an exploratory approach, as extant research has not yet operationalized ex ante and ex post efficiency determinants. We use different models testing the impact of several factors that determine the ex ante and ex post efficiency on the outcomes of the procedure.

From a methodological point of view, the paper offers a contribution to the development of theoretical models that examine the economic efficiency of bankruptcy procedures. The ex ante and ex post efficiency concepts present a powerful theoretical tool, but difficult to operationalize. Our aim was to use findings from three research fields law, economy and management and explain the impact of the ex ante and ex post efficiency on the outcome of the preventive agreement, the most important insolvency option in Italy for companies in distress, that represents an alternate to bankruptcy (liquidation) and private restructurings.

Referring to the comprehensive ex ante and ex post models we draw the following conclusions. The ex ante efficiency (operationalized through characteristics of companies with particular regard to the severity of the crisis, to the previous conduct of the ownership, governance and management) has a significant impact on the outcome of the procedure. We find that management and governance characteristics such as generational transition, fresh money, management structure and organizational settings are more likely to achieve a favorable outcome of the preventive agreement adding new findings to existing literature.

The ex post efficiency factors have also been shown to have an important impact on the outcomes of the procedure. The effectiveness of judicial control – the presence of a court commissioner and/or absence of evaluations/reservations made by the same, significantly reduce the probability of revocation and confirmation of the important role of the court commissioner in the reporting of fraudulent and opportunistic behavior of the debtor in distress. In addition, the “blanc” filing increases the risk of being rejected, confirming the

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importance of the preventive agreement plan as means to lower the asymmetrical information between the debtor, stakeholders and the court (Farmer, 1985; Hege, 2003).

The attractiveness of the proposal from creditors' perspective represents an important feature that influences the outcome. In fact, an increased recovery rate, albeit slightly, increases the possibility of approval and reduces the chances of revocation (Gilson *et al.*, 2000). The increase in the number of classes of creditors expected in the proposal worsens the quality of the preventive agreement, raising the possibility of rejection of the proposal, while the short execution time proposed in the plan significantly increases the probability of homologation by the court.

The methodological severity of the plan significantly impacts the probability of homologation of the preventive agreement (Evans *et al.*, 2013). The variables that certify the quality of the plan (the comprehensive analysis of the causes of instability and sensitivity analysis) significantly increase the probability of homologation of the preventive agreement. While they decrease with the equal impact the revocation, abrogation and inadmissibility of the procedure. Even with reference to the case of subsequent declaration of bankruptcy emerges the importance of the activities of both the court commissioner and the professional experts in reducing the probability of bankruptcy. Although this research confirms the high incidence of direct expenditure, the costs of procedure may be considered a "good investment" during a procedure of preventive agreement.

The paper's findings have also significant implications for debtors in distress. We confirm the importance of the timely initiation but also suggest the centrality of subsequent procedural and substantial aspects such as the timely preparation of the plan and its technical quality, compared to the success of the proposal, reducing information asymmetries in respect of the court on the management of the company during the procedure, transparency to the company's creditors and appropriateness of the fulfillment proposals. The research results provide evidence to the judicial bodies of the procedure, concerning the characteristics of debtors for the purpose of worthiness evaluation of proposals, underlining the importance of the role of the court and the monitor for the success of the preventive agreement.

The implications are also relevant for future reform of the bankruptcy law for Italy or emerging countries (Shanthi *et al.*, 2015; Reddy, 2016). The determinants that affect ex ante or ex post efficiency should be considered before and after the filing for preventive agreements, to improve the odds of successful restructuring.

The results confirm the difficult nature of the preventive agreement proposals when not accompanied by a plan, but motivated by the debtor's need to obtain immediate protection from individual enforcement actions, with a commitment to prepare subsequently the plan. The analyzes demonstrate that this kind of proposal increases the probability of revocation, abrogation and inadmissibility of the preventive agreement and subsequent bankruptcy of the business. While this type of preventive agreement is expected to facilitate the timely emergence of business crises, even in the absence of a formalized plan, the evidence shows that this type of filing increases the risk of possible opportunistic behavior by the debtors. In fact, if the purpose of the preventive agreement is to avoid individual executive actions, to facilitate the acquisition of new loans and to start a process of restructuring, the request without a plan does not help the debtor to restore a minimal level of trust with creditors to achieve a common solution to the crisis but induces "kick the can down the road" attitude of debtors.

The implications of the research suggest that to preserve the continuity of the businesses, different determinants should be considered to promptly alert on the emerge the state of crisis. These determinants should be based on the ex ante and ex post characteristics



that affect the odds of bankruptcy. The warning systems are more effective and could provide additional incentives for debtors to initiate timely resolution of the crisis, guide the conduct of negotiations between debtor and creditors and lead to the out-of-court procedures. However, hybrid approaches such as preventive agreement, are important as they provide continuous monitoring from the judicial body that reduces the risk of fraudulent cases and opportunistic behavior that would negatively affect creditors.

## Notes

1. The Italian Bankruptcy Law – *Legge Fallimentare* of 1942 (Royal Decree No. 267 of 16 March 1942) underwent a substantial reform in 2005 and was further amended in 2007, 2009, 2012, 2015 and 2016.
2. With the changes introduced first in 2005 (Law 14 May 2005, n. 80) and then in 2006 (Law 23 February 2006, n. 51), the redesign of the arrangement was to encourage the timely emergence from the crisis before the same will turn to collapse and lead to the state of insolvency. On the other hand, this is a precondition for making concrete the option of restructuring, allowing the creation of a full restructuring process and safeguards the functioning business complexes.
3. The important novelty of the preventive agreement concerns the introduction of competitive bidding. Article 163-bis, introduced by Law 132 of 2015, foresees that when the plan includes an offer by a subject already identified by the debtor, which provides for the transfer or lease of the full business, one or more branches of it or specific assets, the Court might look for other parties interested on such actions with a competitive procedure. This is an important aspect of economic efficiency for the selection of court procedures as it assures the correct estimation and realization of the business economic value, seeking to avoid the risk of misjudgments, ensuring the better satisfaction of creditors (Hotchkiss and Mooradian, 2003).

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