How to increase the efficiency of bond covenants:
A proposal for the Italian corporate market

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Abstract

Covenants are particular clauses in firms' debt contracts that restrict business policy, giving creditors the possibility to put specific action into force when the covenants are violated. The main reason accounted for in the literature is that covenants resolve the conflicts of interest between shareholders and bondholders. The lack of coordination between the bondholders may, however, reduce the efficiency of this instrument. We propose an application of the Italian Law by allowing to insert into the new financial hybrids' contract a mandatory representation, in order to giving to an investment firm the right to act as a full powers delegate on behalf of the bondholders.

1. Introduction

Covenants are particular clauses in debt contracts of firms – bonds in this case – that restrict business policy, giving creditors the possibility to put into force precise actions – normally early repayment – when the covenants are violated. The main reason for the existence of bond covenants is to solve the conflicts of interest between shareholders and bondholders. In fact, shareholders and bondholders, having different rights on the cash flows generated by the firm, often suffer of conflict of interest's situations. The shareholders can make business policies that reduce the market value of debt, determining a transfer of wealth from the bondholders. In addition, the choice of risky investments gives rise to conflict between the two subjects, because the additional risk will be distributed in an asymmetric way, not favouring bondholders. Covenants, therefore, limiting such behaviour, can reduce the conflict of interests between the two parts. Unfortunately, covenants also produce undesirable effects, reducing flexibility in

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business policy. The type of covenant and its limits must be chosen, therefore, in order not to compromise business policy, and to be credible in reducing the conflict of interests for the bondholders.

Covenants on bonds were firstly studied in four fundamental articles. In Jensen and Meckling (1976) the covenant was inserted in organic way in the agency costs theory to solve the conflict between shareholders and bondholders. In the same year Black and Cox (1976) publish the first article on the pricing of covenants, using the bond model proposed by Merton (1974) based on the options theory. The two authors consider the covenant as an option that the underwriter of the bond can use when the covenant is violated. A year later, Myers (1977) included the covenants in the more general theory that explains business motivations for indebtedness. Smith and Warner (1979) is the first article specifically dedicated to covenants, with a detailed classification of such instrument. In the years following these publications, we see a consolidation of the themes developed in the initial articles, with some analysis of banking arguments, like monitoring (Berlin and Loeys, 1988; Park, 2000), and several empirical works (Kalay, 1982; Malitz, 1986). In the last few years two important study areas have been looked at in detail: (1) the problems relating to the covenants' violation, and (2) the differences between covenants on public debt and on private debt. Regarding the first area, most of the literature is on aspects of accounting except for some articles related to the renegotiation of the debt contract as a result of covenants violation (Berlin and Mester, 1992). The adoption of determinate accounting principles became, in fact, an instrument of business policy (Watts and Zimmermann, 1986), which can be used to avoid the violation of covenants in debt contracts (Beneish and Press, 1993; Smith, 1993; Wilkins and Zimmer, 1996; Beatty, Ramesh and Weber, 2002; Beatty and Weber, 2003). The main focus of the articles related to the second study area was about the differences within bond covenants in typical banking topics such as: banking relationships (Citron, Robbie and Wright, 1997; Carletti, 2004), the role of collaterals (Rajan and Winton, 1995) and monitoring (Black, *et al.*, 2004; Carletti, 2004).

If we analyse the empirical works in more depth, a large part of them have tried to test the debt covenant hypothesis proposed by Smith and Warner (1979), i.e. firms choose accounting methods to maximize slack in debt covenant constraints (Booth and Chua, 1995; Dichev and Skinner, 2002; Niskanen and Niskanen, 2004; Asquith, Weber and Beatty, 2005). Smith (1993), Sweeney (1994) and Mather and Peirson (2006) have

noticed a different attitude in covenants violation by banks and bondholders. In the case of private debt, covenants are usually set tighter than in public debt. This results in a greater likelihood of violations of covenants in private debt, as opposed to public debt. Both authors hypothesize that this difference is due mainly to the different degree of coordination of the two classes of creditors. Indeed, in the case of private debt, the number of creditors is limited and mainly represented by banks. In the case of public debt, the number of creditors is significantly higher and composed mainly of non-institutional investors, resulting in greater difficulty to find shared agreement in case of violation. This implies, therefore, a higher total violation cost. So, despite the covenants are efficacy in reducing the conflict of interest between shareholders and bondholders, the efficiency of the instrument is reduced in the case of public debt. This result has led some authors to search for possible solutions to increase the efficiency of the bond covenants, where the bondholders have a low level of coordination. The first paper with an effective operative proposal is Amihud, Garbade and Kahan (2000). The three authors highlight that the choice between private debt and public debt, both with covenants, is in fact a trade-off for the enterprise. The bond issues are more liquid and easily diversifiable by the investors, compared with bank financing. In contrast, the bond covenants are weaker and the agency costs higher, as compared to the best possibility of renegotiation and monitoring of bank financing. The limited protection of the bondholders involves a higher spread in bond issue than on bank financing. The proposal of the authors is the creation of a "supertrustee" acting on behalf of the bondholders to «emulate the advantages of private loans – active monitoring, tight covenants and ease of recontracting – while retaining the benefits of liquidity and ease of diversification» (Amihud, Garbade and Kahan, 2000, p. 116). Recently Bratton (2006) has proposed an amendment to U.S. legislation of bondholders trustee in order to increase the power of action during the renegotiation. Schmidt (2006), commenting the work of Bratton (2006), proposes to reduce the quorum for the decisions in assembly in order to reduce delays in the process of renegotiation. The same author goes beyond identifying the amendment in the debt contract as a radical solution to the problem. One could, in fact, grant to the bondholders certain rights in business choices, when a specific covenant is violated.

Our work proceeds as follow. Firstly we will analyse the costs of covenant violation, using two different models: (1) a simple decision model, both for the firm and the

bondholders, to identify the cost in bond issue, and (2) a game approach in order to identify the costs in the exchange offer. In the third paragraph we will analyse a new kind of debt notes introduced by the recent reform of the Italian company law. We will propose a possible way to use these financial instruments to provide for a form of representation of creditors similar to the "supertrustee" elaborated by Amihud, Garbade and Kahan (2000). With the conclusions we end our work.

2. The costs of covenant violation

The conflict between shareholders and debtholders, and the role of covenants, has been classified in an organic way by Smith and Warner (1979). Under certain assumptions on firm structure, of which the most important is the lack of agency costs on all other types of contracts, the two authors identify three main sources of conflict: (1) dividend payments, (2) claim dilution and (3) assets substitution. These will be added a fourth, identified by Myers (1977), which deals (4) the underinvestment (Tab. 1).

TABLE 1. The sources of interests' conflict between shareholders and bondholders

Source of conflict	Interested firm policy
Dividend payments	Dividend policy
Claim dilution	Financing policy
Assets substitution	Investment policy
Underinvestment	Investment policy

The main purpose of their presence comes from the fact that in the price of issued bonds being incorporates such firm policies. In fact, the debt issued by a company has a financial component and a structural component. The first is subject to financial risk, because the price of debt is changed to a variation of the interest rate. The second component is subject to business risk, estimated with the variability of the assets value. The cash flow of a firm are usually not dependent on the second component, so any change in the business risk next to the bond issue entails a corresponding change to its market price. In addition to this reasoning, the conflict of interests also depends on the different nature of the rights to the cash flows of the two groups of subjects. Shareholders receive the residual cash flow, after having paid the bondholders who are entitled to

fixed cash flows. The limited liability of the shareholders to the net capital, together with bankruptcy costs, can also change the risk preferences of shareholders and debtholders (see Damodaran, 2001).

The conflict of interests between shareholders and bondholders can be reduced by inserting appropriate covenants in debt contracts in order to reduce the transfer of wealth to shareholders. Using this instrument involves certain costs, among which the most important are the violation costs. In fact, if the company violates the covenants, the creditor may normally require early repayment or its renegotiation. In both cases the company and the creditors must bear a number of costs, which can reduce the efficiency of covenants. We can consider three types of violation costs: (1) costs of renegotiation, (2) costs of refinancing, and (3) costs of restructuring (Beneish and Press, 1993). The first are related to the time needed for negotiation and for the redefinition of the debt contract (for example, legal fees and auditing). The costs of refinancing can be identifying with the increase in the interest rate on new debt following the covenants violation (either in the case of a new debt contract or of a redefinition of the existence ones). Finally, the restructuring costs are associated with changes in company policy after the violation (for example, the request for reduction of financial leverage or the decrease in business performance due to liquidation of assets). The debtor mainly pays these costs, but the costs of the renegotiation may be charged even to the lender.

2.1. Costs in bond issue

In the bond issue we must distinguish a model for the firm and ones for the bondholders. In the first case, the firm is subject to two types of costs, the loss of flexibility in business policy and the expected cost of covenants violation, and one income, the lower interest rate compared to an equivalent bond without covenants. Suppose that a firm should issue a bond with nominal value D and must choose between a standard contract with spread s, and a contract with a financial covenant with a reduction b on the spread. We define with d the relative distance between the current value of the financial ratio of the firm and the value of them established by the covenant, and with p_F the probability of covenant violations, estimated by the firm. Let then C_F the total violation costs, including those of renegotiation, and F_C the costs arising from the loss of flexibility in corporate policy. Both types of costs are expressed in monetary value. For simplicity assume risk neutrality by the firm, so we can only take into account the expected

values of the problem. The firm will choose the issue with covenant only if

$$D \times s \geq D \times (s-b) + F_C(d) + p_F(d) \times C_F \qquad (1)$$

that, if we divide both terms for the face value of the bond, becomes

$$b \geq f_c(d) + p_F(d) \times c_F \qquad (2)$$

Both the cost of flexibility loss, and the probability of violation are decreasing in respect to d, i.e.

$$\frac{\partial f_c(d)}{\partial d} \leq 0, \frac{\partial p_F(d)}{\partial d} \leq 0 \qquad (3)$$

You can find the choice set for the firm in the following

$$\Omega_F = \left\{ (b,d) \middle\| b - f_c(d) - p_F(d) \times c_F \geq 0 \right\} \qquad (4)$$

The bondholders are subject to the reduction of the spread and to the renegotiation costs in the event of violation C_B, the latter depending on the coordination level. In fact, if the bondholders are relatively few, the degree of coordination is significantly reduced and the renegotiation costs are particularly high and such, in most situations, can prevent a change in the contract. Another cost is related to the monitoring of the firm M_B, depending also on the coordination level. The bondholders can count on revenue from early repayment because, when the firm violates the covenant, the market price of the bond will be lower reflecting greater risk. The bondholders will, therefore, underwrite the bond issue only if:

$$D \times s \leq D \times (s-b) - p_B(d) \times C_B(co) - M_B(co) + p_B(d) \times R(d) \qquad (5)$$

that, if we divide both terms for the face value of the bond, becomes

$$b \leq p_B(d) \times \left[r(d) - c_B(co) \right] - m_B(co) \qquad (6)$$

As in the previous case the probability of violation, estimated by bondholders, is decreasing with increasing in d, while revenue from the early repayment is supposed growing. Indeed, the greater the distance set at the time of issue, the greater the reduction in the market price in the event of violation. The signs of derivatives are, in this case, the following

$$\frac{\partial r(d)}{\partial d} \geq 0 , \frac{\partial p_B(d)}{\partial d} \leq 0 , \frac{\partial c_B(co)}{\partial co} \leq 0 , \frac{\partial m_B(co)}{\partial co} \leq 0 \tag{7}$$

The choice set for the bondholders thus becomes

$$\Omega_B = \left\{ (b,d) \middle| b - p_B(d)\left[r(d) - c_B(co) \right] - m_B(co) \leq 0 \right\} \tag{8}$$

The condition of the bond issue will thus chosen by the firm, identifying the pair (b, d) on the set $S = \Omega_F \cap \Omega_B$. In Fig. 1 you can see an example of it, assuming linear functions for the probability of covenant violation, and for costs and revenues for the firm and the bondholders.

FIGURE 1. The choice set for the firm
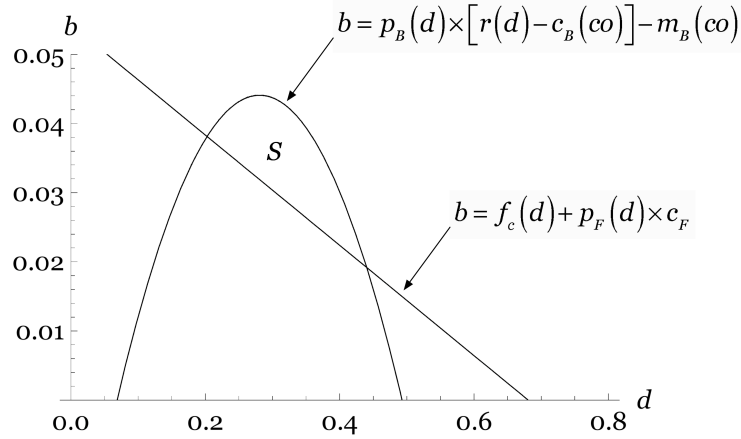
A low level of coordination between the bondholders increases the renegotiation costs, reducing the S set of choice for the firm. Other things being equal, the bond will issue with a smaller spread and/or with a higher value of d. In some cases, where the coordination level is extremely low, the S set could be empty and the firm will decide to issue a standard bond (Fig. 2).

FIGURE 2. The empty choice set for the firm with a low coordination level

$$b = p_B(d) \times \left[r(d) - c_B(co) \right] - m_B(co)$$

$$b = f_c(d) + p_F(d) \times c_F$$
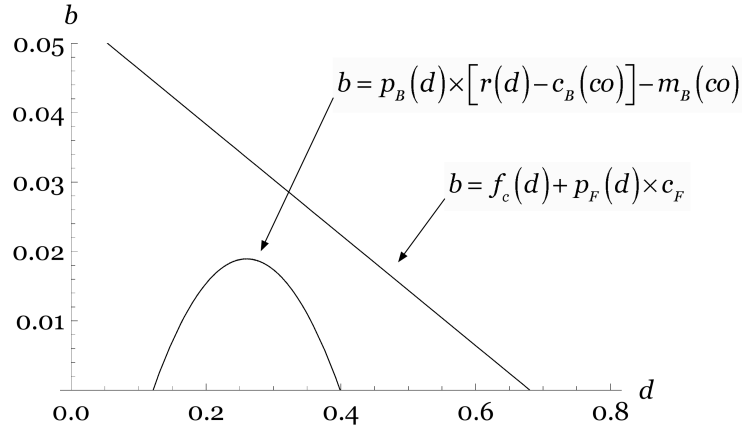
Therefore, a high level of coordination, for example if the bondholders decide to rely to a trustee or an equivalent figure aggregating bondholders' will, would lead to a reduction in the expected renegotiation costs in the event of covenant violation. The set S of choice by the firm would become wider, allowing a more efficient decision, avoiding the situations in which the company would find more convenient the issue of a standard bond.

2.2. Costs in exchange offer

The costs in exchange offer occur when the covenant becomes tight, binding the firm's policy. In this case the firm can (1) attempt a renegotiation with creditors or (2) attempt to replace the bond with a new issue without covenants (the exchange offer). The low level of coordination between the bondholders can determines, in this case, high renegotiation costs that does not make convenient for the firm to renegotiate the debt contract. The firm can only try to replace existing debt, providing a new ones without the protection afforded by the covenant. If we consider the relationship to a single investor, the minimum conditions for the exchange will be to balance the expected loss of replacement revenue, net from the expected renegotiation costs. Therefore, the increase in the spread will be at least being greater than the loss of protection of the bondholders. The analysis changes significantly if we move from the individual investor to all subscribers of the debt. The firm could, in fact, set the new issue differ-

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ently, trying to exploit the limited level of bondholder's coordination (Oldfield, 2004). Suppose that the firm sets the new bond, without covenant, at a lower spread than the equilibrium spread for the individual investor. Accepting the exchange is equivalent to vote favourably to the cancellation of the covenant on the old bond. If the exchange is carried out by a qualified majority of bondholders the cancellation of the covenant will affect even the investors who have not acceded to. To calculate correctly the loss or gain value in the four possible cases, we can use the standard bond pricing.

The price of any bond is estimated whit the sum of their discounted cash flows, using the spot curve, as in the following expression

$$p_s = \sum_{i=1}^{n} \frac{f_i \times 100}{\left(1 + s_i\right)^{t_i}} \tag{9}$$

where s_i is the spot rates at time t_i (expressed in years), and f_i are the cash flows (each divided by the refund value of the bond). Given the theoretical price $\hat{p}_s$ estimated using expression (9), we can find the internal rate of return (IRR), i.e. the rate that solves the following expression

$$\hat{p}_s = \sum_{i=1}^{n} \frac{f_i \times 100}{\left(1 + \text{IIR}\right)^{t_i}} \tag{10}$$

Let's assume that the bond with covenant that the company wants to replace has remaining maturity of n years, fixed annual coupon c_c and market price of 100. Simply changing the IRR it is possible to identify what should be the equilibrium coupon for the new issue addressed to the individual investor (see Xxx, 2008). Given the distance d between the limit of the financial covenant and the current financial ratio of the firm, the equilibrium value for the coupon of the new issue will be $c_c + b_B^*$, where

$$b_B^* = p_B\left(\hat{d}\right) \times \left[r\left(\hat{d}\right) - c_B\left(co\right)\right] - m_B\left(co\right) \tag{11}$$

and co indicates the level of coordination. In this way the new bond, with maturity n, will have the same market value of the bond to be exchanged and will thus be issued at a price of 100. The company decided, however, to exploit the limited level of coordination between the bondholders to issue the new title with a coupon value $c_l = c_c + b_b^* - r_l$, slightly lower than the equilibrium ones. The price is calculated using in expression

(10) as discount rate the IRR of the equilibrium issue

$$p_l = \sum_{i=1}^{n} \frac{f_{l,i} \times 100}{\left(1 + c_c + b_B^*\right)^{t_i}} = \sum_{i=1}^{n} \frac{\left(c_c + b_B^* - r_l\right) \times 100}{\left(1 + c_c + b_B^*\right)^{t_i}} + \frac{100}{\left(1 + c_c + b_B^*\right)^{t_n}} \qquad (12)$$

The prices of the two bonds will be, however, affected by the results of the exchange offer. If a qualified majority of investors do not accept the exchange, the market price of the old bond doesn't change. The minority of investors that had accepted the exchange would have an increase in prices of the new title. This because the new bond comes with a higher coupon and with the protection given by covenant for the old ones. In this case we apply the same expression using the IRR of the old bond

$$p_l\big|_{<75\%} = \sum_{i=1}^{n} \frac{f_{l,i} \times 100}{\left(1 + c_c\right)^{t_i}} = \sum_{i=1}^{n} \frac{\left(c_c + b_B^* - r_l\right) \times 100}{\left(1 + c_c\right)^{t_i}} + \frac{100}{\left(1 + c_c\right)^{t_n}} \qquad (13)$$

The price of the old bond, when the exchange had success, loses value, because the bond loses the protection offered by the covenant. In this case, for the price estimation, we use the IRR of the equilibrium issue, that is

$$p_l\big|_{>75\%} = \sum_{i=1}^{n} \frac{f_{l,i} \times 100}{\left(1 + c_c + b_B^*\right)^{t_i}} = \sum_{i=1}^{n} \frac{c_c \times 100}{\left(1 + c_c + b_B^*\right)^{t_i}} + \frac{100}{\left(1 + c_c + b_B^*\right)^{t_n}} \qquad (14)$$

If we assume that: (1) the coupon of the original title, c_c, is equal to 4%, (2) the increase in coupon b_B^* for the equilibrium issue, without covenant, is equal to 1%, (3) the maturity n, is of four years and (4) the reduction of equilibrium coupon r_l is 0.4%, we obtain the data in Tab. 2.

TABLE 2. Bond prices for the single investor (no-fair exchange offer)

The 75% of investors	i-th investor	
	Accept	Doesn't accept
Accept	98.58	96.45
Do not accept	102.18	100

The best strategy for the investor is to accept the exchange, dominant strategy than to keep the old bond. Indeed, whatever the final outcome of the exchange, the investor

will get a highest market price of the bond: 98.58 instead of 96.45 and 102.18 instead of 100. Such a rational decision, because the loss of coordination will be taken by all other investors, so the result will be the acceptance of the exchange with a market price of the new bond of 98.58 and a transfer of wealth to shareholders.

In terms of price the wealth can be calculated with the following expression:

$$
\Delta p = \sum_{i=1}^{n} \left[\frac{f_{l,i} \times 100}{\left(1+c_c\right)^{t_i}} - \frac{f_{l,i} \times 100}{\left(1+c_c+b_B^*\right)^{t_i}} \right] =
$$
$$
= \sum_{i=1}^{n} \left[\frac{c_c \times 100}{\left(1+c_c\right)^{t_i}} - \frac{\left(c_c+b^*-r_l\right) \times 100}{\left(1+c_c+b_B^*\right)^{t_i}} \right] + \left[\frac{100}{\left(1+c_c\right)^{t_n}} - \frac{100}{\left(1+c_c+b_B^*\right)^{t_n}} \right]
$$

(15)

When $t_i = i$ the expression (15) may develop and simplify obtaining the following compact expression, which highlights the value of earnings to shareholders, resulting from lack of coordination between the bondholders:

$$
\Delta p = \frac{r_l}{c_c+b_B^*} \times \left[1-\left(1+c_c+b_B^*\right)^{-n} \right] \times 100
$$

(16)

It is easy to show that this value is decreasing whit a higher level of coordination between the bondholders, in fact, using expression (11) and (16) we have

$$
\frac{\partial \Delta p}{\partial co} = \underbrace{\frac{\partial \Delta p}{\partial b_B^*}}_{\leq 0} \times \underbrace{\frac{\partial b_B^*}{\partial c_B}}_{\leq 0} \times \underbrace{\frac{\partial c_B}{\partial co}}_{\leq 0} \leq 0
$$

(17)

The level of coordination between the bondholders plays a crucial role. The high coordination in the event of a trustee will push the firm to make the exchange offer fair, with the consequent reduction in the transfer of wealth to the shareholders.

3. A proposal for the Italian corporate market

3.1. The new securities introduced in the Italian corporate financial market

The 2003 company law reform brought considerable changes to the Italian Civil Code of 1942 by overcoming the historic limitations suffered of the Italian corporate financial market (Lamandini, 2001, Bianchi and Giannelli, 2003). Traditionally the

Code provided for only two forms of securities for the public company model (hereinafter s.p.a.), namely shares and bonds: only for listed s.p.a.'s the so called "minireform" renewed in 1974 the distinction by admitting non-voting shares. The 2003 reform lead to an increased fading of the traditional differences between the two kind of securities admitted for s.p.a.'s, by allowing corporations to freely modify them in obedience to some limited principles and by introducing new financial hybrid instruments.

These kinds of securities find a narrow regulation in art. 2346, 6th co., civil code (hereinafter c.c.), which allows the issuers to link the debt more strictly to the corporate affairs. Indeed, the owners of such securities may participate into the corporations' affairs in two different ways: the first and main way consists in exposing the value of securities to entrepreneurial risk partially, or wholly as shareholders do. The second way consists in the possibility for creditors to take part indirectly in the management, having the right to vote on some predetermined issues (for a similarity with voting bonds, see Enriques, 2005a) or to nominate an independent director (art. 2351, 5th co., c.c.). The greater freedom to differently match these characteristics enables issuers to create debt securities, for example, not directly exposed to the company's trend like normal bonds, but with the right to designate the qualified member of the board or to vote on predetermined arguments, such as a right of veto about new financial operations or similar covenants giving the holders the right to approve managers' decision (Campobasso, 2006; Ferrara and Corsi, 2006).

The 2003 reform didn't modify in depth artt. 2410-2420 ter c.c., which regulate the issues of non-participating bonds and the assembly of underwriters. The most relevant amendments concerned the removal of the issuing limit rule for listed s.p.a.'s, (calculated on the amount of the sum of legal capital and the reserves owned by the issuer) in favour of a market monitoring of the companies' sustainable indebtedness (Brescia Morra, 2003; Yyyy, 2006a), which seems to partially sustain the criticism over the legal capital rules recently voiced by some Authors (for the Italian debate see: Enriques and Macey, 2001; Denozza, 2002; Enriques, 2005b).

On the contrary, the reform didn't change the part of Italian Civil Code that regulates the assembly of bondholders. The primary duties of the assembly continue to be the approval of the debt renegotiation proposal and the election of a delegate, the only s.p.a.'s direct counterpart for questions concerning the debt contract. Although this task could be assigned to a single person, a financial service company or a trust com-

pany are also considered eligible. However, because of debtors' indifference, a Court on the request of s.p.a.'s management normally chooses the delegate. In any case, the bondholders' representative lacks of an adequate power to check the issuer's moves, as he has only the right to attend the shareholders meeting, to read the minutes of debates and to look into the shareholders' register, whereas he is denied a direct access to the other most important account books. These limitations reduce the delegate's capacity to perceive the company's financial distress and, consequently, to propose a preventive debt renegotiation, which should be approved by the majority of bondholders. This organizational formula seems to work only for bonds and for companies' trend related hybrid securities on the strength of art. 2411, 3rd comma, c.c. On the contrary, art. 2376 c.c. provides only that the owners of administrative participating hybrids – if not company's trend related – should meet in assembly to vote on the proposal to modify their administrative rights in compliance with the rules governing the extraordinary meeting of shareholders, without the explicit right to nominate a delegate as bondholders do (Cerrato, 2004; Sarale, 2004; Ferrara and Corsi 2006; *contra* Campobasso, 2006, who extends the applicability of the representative structure provided for bondholders).

Both of the described legal models seem to lack efficacy in preventing a borrower's default, mainly because the assembly's vote requires a long interval of time, which normally becomes determinant to approve a debt renegotiation plan following an unexpected financial crisis (Yyyy, 2006b). Furthermore, art. 2376 c.c. presents considerable problems in unifying the will of the bondholders – often represented by dispersed money savers without adequate financial culture – due to the lack of a delegate that could act as an active sentinel for them and, at the same time, as a unique contractual counterpart for the company's board of directors. Nonetheless the short text of art. 2376 permits to improve contractually the legal discipline by providing a kind of representative mechanism similar to the "supertrustee" for the management of the economic terms of the debt, which is not regulated by the law.

3.2. A proposal for the Italian corporate bonds market

The Trust Indenture Act of 1939 (codified at 15 U.S. Code § 77aaa through § 77bbbb) prohibits offering bond issues for sale without a formal written agreement (i.e. an indenture) that fully lays out the details of the bond issue. The Act also stipulates that a trustee must be appointed for the protection of bond investors. In the event that a bond

issuer should become insolvent, the appointed trustee may be given the right to seize the issuer's assets and sell them in order to recoup the bondholders' investments. The main difference between the Italian bondholders' delegate and the trustee provided by the Trust Indenture Act is the extension of the powers of the latter, who must exercise them in case of default with the "same degree of care and skill … as a prudent man" would use for his own affairs (§ 77ooo(c)). The operational freedom (that is criticized by Schwarcz and Sergi, 2008, for being too ministerial in the pre-default phase and too weak in the post-default phase, as it isn't aimed at maximizing the bondholders' value return) is however contained by § 77ppp(a)(1), which authorizes the majority of bondholders to "direct the time, method, and place of conducting any proceeding for any remedy available to such trustee, or exercising any trust or power conferred upon such trustee" and "on behalf of the holders of all such indenture securities, to consent to the waiver of any past default and its consequences". Furthermore, the bondholders of not less than three fourths of the indenture securities amount may consent, on behalf of all the holders, to postpone the payment of interests for a period not exceeding three years from due date (§ 77ppp(a)(2)).

The "supertrustee" proposal elaborated by Amihud, Garbade and Kahan (2000) aims to improve the tasks and duties of the trustee in the pre-default phase on the strength of an agreement, including the power to act independently of bondholders according to a business judgement standard (also Schmidt, 2006, and Schwarcz and Sergi, 2008, embrace this solution). In a market-based perspective, the adoption of a "supertrustee" should be voluntary, devolving the choice on the issuer. The company should consider the balance of the burden to finance such a counterpart and the benefits of a reduction in borrowing costs achieved by the use of tighter bond covenants as resulting from a more efficient relationship with dispersed debtholders. This legal scheme could be probably borrowed also by the Italian corporate dispersed debt market. However, the use of the trust model is still exceptional in Italy: in obedience to the Civil Law tradition, the Italian lawmaker doesn't generally support a legal distinction between legal ownership and equitable ownership. On the contrary, the regulation concerning financial services traditionally contains provisions about a securities indenture in favour of a beneficiary: Law. no. 1966 of 1939 provided for the "società fiduciaria" (trust company) to supply real assets or securities portfolio fiduciary managements. Nevertheless, after the Investment Services Directive of 1993 was acknowledged by

legislative decree no. 415 of 1996, "società fiduciarie" may continue to exercise single portfolios management as trust companies, but they cannot more directly operate other financial services on behalf of their clients in respect of the rule of separation of assets (art. 60, actually applicable by legislative decree no. 58 of 1998, art. 199; Costi, 2008).

As explained in the previous paragraph, the Italian Civil Code seems to provide for two different models of representation for dispersed debt creditors of s.p.a.'s: the bondholders' assembly and delegate model for bonds and for company's trend related debt securities, whereas only the special assembly method is admitted for administrative participating hybrid. From the debtors' perspective, the latter appear to be the most interesting type of securities introduced by the 2003 reform, as they give them the opportunity to insert a "sentinel" within the core of the company (Vella, 2004). The lack of a representative figure is anyway a strong obstacle to the success of a hypothetical renegotiation both in a pre-default phase, and in case of a covenant breach. This legal deadlock could be partially broken by implementing contractually the narrow discipline contained in art. 2376 c.c., and by introducing the opportunity to let the financial market counterparts negotiate an alternative model of creditors' representation (Pisani Massamormile, 2003), similar to the "supertrustee" proposed by Amihud, Garbade and Kahan (2000). This solution could simply be achieved by inserting into the debt contract a mandatory representation of an investment firm exercising the custodianship and administration of financial instruments for the account of clients (as allowed by the legislative decree no. 58 of 1998, art. 199, art. 1, co. 6, (a); see also art. 1838 c.c.: Perassi, 2001), that could be implemented by the insertion of an appropriate clause in the prospectus (see provision no. 4.13 of the Annex V of the EC Regulation no. 809/2004). The bank or the investment firm organizing as lead manager the initial public offering of debt securities may promote directly this form of representation by electing an affiliated or a third party investment firm as sole delegate of the holders of the securities, mandated to exercise full power action according to a business judgement standard with the express consent of the underwriters required by the legislative decree no. 58 of 1998, art. 21, co. 2.

The operational freedom of the delegate should include the power to sign debt renovation agreements and transactions about the financial terms of the debt – including most part of the possible covenants – except the modification of active administrative rights in compliance with art. 2376 c.c. Nonetheless this service shouldn't represent a

kind of portfolio management, because it wouldn't be a service on a "client by client basis", but a mass-debt administration, similar to that exercised by the bondholders' delegate, although including extraordinary management tasks. The prospectus could also recognize debtors' right to veto the core terms renegotiation proposal, as Amihud, Garbade and Kahan (2000) suggest as a secondary, sub-optimal choice (*contra* Bratton, 2006, who prefers only a ratification of payment terms recontracting, with the exclusion of covenant amendments with a view to not exposing the debtor to the uncertainty of the lenders' vote).

The costs of the administration should be quite irrelevant during the ordinary phase (mainly the independent director's fee and other necessary monitoring expenses) and for this reason they could be sustained by the debtholders, but also as well as by the issuer or by the investment firm, as an incentive for the issue. In the event of a breach of a covenant or in case of a payment default, the renegotiation costs (for example the cost of extraordinary monitoring or, if necessary, the cost of the bondholders' assembly) should be paid by the issuer (or the investment firm partially charged with them) in order to defend creditors' value maximization principle and to avoid stimulating opportunistic debtors' behaviour. As in the "supertrustee" model, compensation "should be greater for bonds with more complex covenants, for bonds issued by companies with more complicated and less transparent operating characteristics, and for bonds bearing more credit risk and for which more intense monitoring is appropriate and more renegotiation is likely to be needed" (Amihud, Garbade and Kahan, 2000).

The problem of a possible conflict of interests between bondholders and the lead investment manager or the affiliated firm could be solved by giving creditors the opportunity to change the delegate with the majority imposed by art. 2376 c.c., and to choose another firm to supply the same service. As the Authors of the "supertrustee" model suggest, a debt contract should provide a list of candidates submitted by the borrower to reduce the danger of dealing with an opportunistic representative firm designated by the bondholders. Moreover, the risk of ruining their reputation with clients or of becoming defendants in an injunctive class action suit (recently introduced in Italian financial market as well) could be considered sufficient incentives to get the investment firm to effectively fulfil its representative duties.

4. Conclusions

Covenants can be an effective tool to reduce the conflict of interests between shareholders and bondholders. The lack of coordination between the bondholders may, however, reduce the efficiency due to the high amount of the expected costs of renegotiation following the covenant violation. The empirical evidence shows, in fact, that in case of bank loans, where coordination is high, these costs are lower and use of covenants is more efficient. With the help of two theoretical models, the first for the bond issue, the second for the exchange offer, it is possible to identify the cost of lack of coordination between the bondholders. In both cases it is easily to verify the efficiencies in the use of covenants if the bondholders decide to create a trustee. This possibility is suggested for the U.S. market by Amihud, Garbade and Kahan (2000) and, more recently, by Bratton (2006). Following this indication – even if not directly applicable – we propose an application of the Italian Law by allowing to insert into the new financial hybrids' contract a mandatory representation alternative to the model provided by the Italian Civil Code, giving to an investment firm exercising the administration of financial instruments, the right to act as a full powers delegate on behalf of all the holders of the securities.

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