A Social Contract Account for CSR as an Extended Model of Corporate Governance (I): Rational Bargaining and Justification

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ABSTRACT. This essay seeks to give a contractarian foundation to the concept of Corporate Social Responsibility (CSR), meant as an extended model of corporate governance of the firm. It focuses on justification according to the contractarian point of view (leaving compliance and implementation problems to a related article, [Sacconi 2004b, forthcoming in the Journal of Business Ethics]). It begins by providing a definition of CSR as an extended model of corporate governance, based on the fiduciary duties owed to all the firm's stakeholders. Then, by establishing the basic context of incompleteness of contracts and abuse of authority, it analyses how the extended view of corporate governance arises directly from criticism of the contemporary neo-institutional economic theory of the firm. Thereafter, an application of the theory of bargaining games is used to deduce the structure of a multi-stakeholder firm, on the basis of the idea of a constitutional contract, which satisfies basic requirements of impartial justification and accordance with intuitions of social justice. This is a sequential model of constitutional bargaining, whereby a constitution is first chosen, and then a post-constitutional coalition game is played. On the basis of the unique solution given to each step in the bargaining model, the quest for a prescriptive theory of governance and strategic management is accomplished, so that I am able to define an objective-function for the firm consistent with the idea of CSR. Finally, a contractarian potential explanation for the emergence of the multi-fiduciary firm is provided.

KEY WORDS: fiduciary duties, stakeholder theory, theory of the firm, incompleteness of contracts, social contract, bargaining games, distributive justice, impartiality

Introduction and motivations

This essay seeks to give a contractarian foundation to the concept of Corporate Social Responsibility (CSR), by which is meant an extended model of corporate governance. In order to account for this institutional model, the idea of rational agreement (i.e. the social contract) must be simultaneously developed in two directions: on the one hand, it must work as a justification by giving moral reasons for accepting the institution from an impartial and impersonal standpoint; on the other, the same idea must have direct implications for personal incentives and motivations to implement the institution in practice. In fact, in a 'state of nature', namely a situation of pre-institutional strategic interaction, the institution can be implemented only if the agreement is self-enforceable. In other words, the social contract can resort to no other means of implementation than those which the agreement is able to induce by itself. David Gauthier clarified this point by distinguishing two separate rationality tests that the 'morals by agreement' theory should satisfy simultaneously (see. Gauthier, 1986, pp. 116–118):

(a) *Internal rationality*: this is a rationality appraisal that all individuals conduct when deciding whether to enter an agreement on rules which enable them to escape from a reciprocally unprofitable 'natural interaction' and to initiate a mode of mutually beneficial cooperative interaction. It requires a condition of *ex ante* rationality concerning how agreement

can be reached on one point in the set of feasible bargaining outcomes. It is 'internal' because it views rationality from within the perspective of bargaining – which takes for granted that if an agreement is reached, it will be implemented to the mutual advantage of the bargainers. Internal rationality (or *ex ante* rationality) has one single problem to solve. Rational bargaining takes place in situations where there is some feasible surplus to be distributed amongst the individual participants, granted that they are able to reach an agreement. But there are too many agreements possible – some of them preferred by one party, others by another. Hence, devising a solution acceptable to all requires solution of a mixed motives game of coordination. A bargaining game is a way to solve this coordination problem before the bargainers play the cooperative game in which the agreed joint strategy will be implemented in order to produce and allocate the surplus. Thus, the *ex ante* problem of selecting by bargaining a unique solution can be detached from the *ex post* problem of implementing the contract itself.

(b) *External rationality*: when we move from the *ex ante* to the *ex post* perspective, we ask whether any agreement reached can also be complied with by the same players who agreed on it. This is a different problem because the game-logic of compliance differs from that of entering a bargain in a cooperative game. It is instead the logic of an *ex post* non-cooperative game in which the players decide separately but interdependently whether or not to comply with the *ex ante* agreed contract. From this perspective, the question is not so much whether the contract provides reasonably high joint benefits and distributes them in an acceptably fair way; rather, the question is mainly whether there are incentives for cheating on the counterparty to the agreement, given the expectation that s/he will abide by the contract. Thus, according to Gauthier, the search for external rationality must address the problem of a potential divorce between individual rationality (expected personal utility maximisation) and social optimality (i.e. Pareto efficiency), which is instantiated by the typical prisoner's dilemma game.

Ken Binmore has made a similar point in his series of studies on "game theory and the social contract" (Binmore, 1989, 1991, 1994, 1997, 2005).[1] These authors – notwithstanding many marked divergences among them – have carried forward an endeavour to give a contractarian foundation to institutions in terms of cooperative bargaining theory on one hand, and non-cooperative-game theory on the other. Here, and elsewhere (see Sacconi, 1991 and 2000), I too have adopted this mode of theorizing. However, there are aspects besides the mere choice of the appropriate game model to be discussed in this account of CSR as a corporate governance model. In order to outline the set of problems dealt with in this essay, let me partition them into two broad categories reflecting the distinction just made. *First*, I define the *context of justification* for a business ethics norm as the domain in which the condition of validity of a norm (say, a business ethics code of conduct or a CSR-code of corporate governance) coincides with its impartial rational acceptability. It is impartial acceptability that gives normative force i.e. prescribes the action or behaviour to be adopted by the agents. The contractarian approach rests on the hypothesis that a rational agreement model is the best way to account for justification. And the one that I use here will also take a rational agreement to be the outcome of an appropriately defined bargaining game. *Second*, I define the *context of compliance and implementation* as the domain where the validity of a business ethics norm is to be appraised in terms of its effectiveness, i.e. its ability to induce endogenous motivations or incentives causing behaviour which complies with the norm, so that the norm results implemented through the agents' behaviour. Setting provisionally aside the compliance and implementation context, in so far as it is discussed in a related paper (Sacconi, 2004b), there are four questions to be addressed within the justification context:

(1) Can we develop a bargaining model whereby an institutional framework for CSR is deducible as the solution for the players' rational calculation of their best bargaining strategy? This question concerns the *ex ante* or 'internal' rationality of a model of governance seen as an outcome of a social

contract amongst stakeholders: it asks whether the CSR model of governance could be acceptable for each and whatever stakeholder once s/he assumes the role of a rational bargainer in a hypothetical situation defined as the 'social contract' position. The idea is that if each player recognises that it is individually rational for him and any other participant to agree, then we have provided a justification – at least in the sense of rational mutual advantage.

(2) However, rational mutual advantage as the basis for accepting a deal from each and whatever individual player's standpoint in a bargaining game is not all that matters in the context of justification. Acceptability may also require a second kind of test, one which concerns the moral features (not just the bargaining-game ones) of the deal the parties would have struck through hypothetical bargaining. And these features concern both the notion of impartiality and that of fairness. To control for the former, one must verify that the bargaining rational solution is invariant across permutation of the point of views of all the participants in the hypothetical bargaining situation. But freedom from any moral arbitrariness, like the influence of force, fraud and manipulation, must be verified as well. The bargain must also be free from lock-in effects, these being the inherent source of unfairness in the situation usually taken as the starting point for the contractarian explanation of why the firm as a 'transaction governance structure' emerges. Moreover, we can also check for the fairness of a social contract – even if it has been agreed in a bargaining situation morally neutralised from arbitrariness – in terms of its correspondence to our best moral intuitions about what is a fair or equitable distribution of cooperative benefits amongst the firm's stakeholders.

(3) If distributive justice principles are singled out through rational bargaining on the governance structures of the firm, this may also yield definitions of fiduciary duties which make the ideas of CSR and the multi-stakeholder firm clearer and more univocal. This can answer the third question to be addressed, namely the actual prescriptivism of a stakeholder's normative theory. Being actually prescriptive requires more than adherence to very loose ethical standards that most institutional arrangements of the firm are able to satisfy, leaving the governance structure and the management strategy underdetermined. It should also prescribe a management strategy or a stringent set of institutional constraints whereby a strategy can be singled out.

Indeed, one of the most serious drawbacks to current social contract theories in business ethics is that they are unable to provide definite prescriptions for the institutional structure of the firm and for the business ethics norms that would be accepted *via* a social contract among the stakeholders in the firm. This drawback has prompted some critics – for example Michael Jensen (2001) – to condemn the stakeholder approach as unable to provide a clear benchmark against which management strategies and company performances can be assessed. This prescriptive indeterminacy is also the basis for the charge that the stakeholder approach opens the way for opportunistic behaviour by managers.

The indefiniteness of local social contracts on the specific business ethics norms regulating specific business community, groups, firms or organisations in Donaldson and Dunfee's (1994, 1995, 1999) ISCT is a paragon of this weakness.[2] Donaldson and Dunfee see this indefiniteness as a strength of their approach because of their interpretation of the notions of bounded moral rationality and morally free zone. Yet we cannot derive from that theory any contractarian explanation of how local business norms are shaped by a social contract amongst the firm's stakeholders. To allow for such indefiniteness in local social contracts on the assumption of 'bounded moral rationality' is to miss the point. In fact, general abstract principles of ethics – viewed as the result of hypothetical social contracts at both the global and local level (i.e. at the firm level) – should be seen as alternatives to the standard rationality model based on utility maximisation. The latter is based on the implicit assumption that the decision-maker is able to represent mentally all the logically possible state of affairs and every possible decision consequence and calculate the utility maximum over these possibly infinite spaces of states and consequences. The former is instead based on abstract and general principles of ethics, which remedy the inevitable cognitive limitations of the consequentialist model of economic rationality. By typically fallible but nevertheless reasonable default reasoning, abstract principles give rise to expectations about conducts that take place in the presence of unforeseen states of the world – those states that

we cannot predict because of our bounded cognitive capabilities.

(4) Contractarianism is a twofold approach, at the same time normative and explanatory (according to the assumption that agent act rationally). Both sides of the contractarian enterprise foster one another. Hence the needs of a normative model could be better answered if the contractarian approach were able to provide a hypothetical reconstruction of the emergence of the firm, through an account whereby the stakeholders agree on a particular constitution for it, defining the legitimate claims of those in a position to run the firm, but also of those subject to their authority. This account would provide a 'potential explanation' of how the stakeholders have built up the firm by striking a balance and collectively deciding the priority order in which different interests are to be pursued as the corporate goal. Hence, the final question to be asked is whether the contractarian account can also give a 'potential explanation' for the emergence of the firm.

This paper proceeds as follows. The second section furnishes a definition of CSR as an extended model of corporate governance. The third section discusses how an extended view of corporate governance arises from criticism of the contemporary neo–institutional economic theory of the firm. It sets out the basic context of the incompleteness of contracts and abuse of authority that any attempt to justify and implement the model must consider. The fourth section gives a detailed description of the structure of a multi-stakeholder firm based on the constitutional contract theory, which satisfies the basic requirements stated in points (1) and (2) of this introduction. This quite long section is the normative core of the essay, and it makes the minimum necessary use of the tools of bargaining games. I apologise if the treatment is nevertheless cumbersome for the non-technical reader, but any less use of game theory would have made the formulation of any consistent and precise notion of rational bargain impossible. Hence in fifth section the quest for a prescriptive theory of governance and strategic management – question (3) – is accomplished, and I am able to define an objective-function for the firm consistent with the idea of CSR as a model of governance. Finally, the sixth section gives the contractarian account asked for in point (4) and which can be taken as a potential explanation of the firm's emergence.

A definition of CSR as a model of extended corporate governance

Let me start by suggesting a definition of CSR: *Corporate Social Responsibility is a model of extended corporate governance whereby those who run a firm (entrepreneurs, directors and managers) have responsibilities that range from fulfilment of their fiduciary duties towards the owners to fulfilment of analogous fiduciary duties towards all the firm's stakeholders.*

This definition is consistent with propositions put forward in official documents issued by international organisations.[3] Moreover, the definition is consistent with some of the promises made by the first attempts to develop a normative stakeholder theory. For example, Freeman and Evan highlight the fiduciary relationships between the firm and all its stakeholders and the ensuing nature of the firm as a tool for coordinating efforts aimed at satisfying all the stakeholders' interests. They therefore suggest (but unfortunately do not develop in detail) a definition of corporate governance and strategy based on the Kantian view that, because all stakeholders are not merely means for the firm but also ends in themselves, their rights and interests should be pursued as corporate goal by the firm and they should also participate in decision processes affecting their interests (see Freeman and Evan 1989, p. 82). Similarly, Donaldson and Preston conclude their well-known essay on the priority of the normative side of stakeholder theory by stating that a 'managerial' stakeholder approach should derive from a complex view of property rights, which includes not only claims to control and residual earnings but also the owner's constraints and responsibilities toward stakeholders (see Donaldson and Preston, 1995, pp. 83–85).

To clarify my definition, however, I must define its basic terms:

(a) *Fiduciary duties*. Assume that a subject has a legitimate interest but is unable to make the relevant decisions, in the sense that s/he does not know what goals to pursue, what alternatives to choose or how to deploy his/her resources in order to satisfy his/her interest. S/he, the *trustor*, therefore delegates decisions to a *trustee* empowered to choose actions and goals. The trustee may thus use the trustor's resources and select the appropriate course of action. For a fiduciary relationship – this being the basis of

the trustee's authority *vis-à-vis* the trustor – to arise, the latter must possess a claim (right) towards the former. In other words, the trustee directs actions and uses the resources made over to him/her so that results are obtained which satisfy (to the best extent possible) the trustor's interests. These claims (i.e. the trustor's *rights*) impose fiduciary duties on the agent who is entrusted with authority (the trustee), which s/he is obliged to fulfil. The fiduciary relation applies in a wide variety of instances: tutor/minor and teacher/pupil relationships, and (in the corporate domain) the relation between the board of a trust and its beneficiaries, or according to the predominant opinion, between the board of directors of a joint-stock company and its shareholders and then more generally between management and owners (if the latter do not run the enterprise themselves). By the term 'fiduciary duty', therefore, is meant the duty (or responsibility) to exercise authority for the good of those who have granted that authority and are therefore subject to it.[4]

(b) *Stakeholders*. This term denotes individuals or groups with a major stake in the running of the firm and who are able to influence it significantly (Freeman and McVea 2002). However, a distinction should be drawn between the following two categories:

(i) *Stakeholders in the strict sense*: those who have an interest at stake because they have made specific investments in the firm (in the form of human capital, financial capital, social capital or trust, physical or environmental capital, or for the development of dedicated technologies etc.) – that is, investments which may significantly increase the total value generated by the firm (net of the costs sustained for that purpose) and which are made specifically in relation to *that* firm (and not any other) so that their value is idiosyncratically related to the completion of the transactions carried out by or in relation to *that* firm. These stakeholders are reciprocally dependent on the firm because they influence its value but at the same time – given the specificity of their investment – depend largely upon it for satisfaction of their well-being prospects (lock-in effect).

(ii) *Stakeholders in the broad sense*: those individuals or groups whose interest is involved because they *undergo* the 'external effects', positive or negative, of the transactions performed by the firm, even if they do not directly participate in the transaction, so that they do not contribute to, nor directly receive value from, the firm.

We are now able to appreciate the scope of CSR defined as an extended form of governance: it extends the concept of fiduciary duty from a mono-stakeholder setting (where the sole stakeholder relevant to identification of fiduciary duties is the owner of the firm) to a multi-stakeholder setting in which the firm owes fiduciary duties to *all* its stakeholders (the owners included). It is obvious that classification of stakeholders on the basis of the nature of their relationship with the firm must be regarded as important in gauging these further fiduciary duties.[5]

Economic theory and the idea of extended fiduciary duties

Theory of the firm

Let me now inquire whether economic theory provides support for the thesis that the firm has 'extended' responsibilities towards its stakeholders. According to neo-institutional theory (Grossman and Hart 1986; Hansmann 1996; Hart 1995; Hart and Moore 1990; Williamson 1975, 1986), the firm emerges as an institutional form of 'unified transactions governance' intended to remedy imperfections in the contracts that regulate exchange relations among subjects endowed with diverse assets (capital, labour, instrumental goods, consumption decisions and so on). These assets, if used jointly, are able to generate a surplus over the cost of their use that is higher than in the case of their separate use by each asset-holder. However, contracts by which these asset-holders regulate their exchanges are incomplete: they do not include provisos covering unforeseen events, owing to the costs of drafting them or because the cognitive limits of the human mind make it impossible to predict all possible states of the world. Yet for these assets to be used in the best manner possible, specific investments must be made: investments undertaken with a view to the

value that they may produce within an idiosyncratic contractual relation. This entails that the surplus generated with respect to the costs sustained by each party to the exchange is determined by the undertaking of *specific* activities with *specific* counterparts (suppliers, customers, employees, financiers etc.). Let us assume that parties behave opportunistically (that is, they are egoists who act with astuteness). Thus, once the investments have been made, contractual incompleteness means that the terms of the contract can be renegotiated, so that the party in a stronger *ex post* position is able to appropriate the entire surplus, thereby expropriating the other stakeholders. But if agents expect to be expropriated, they will have no incentive to undertake their investments at the optimal level. This expectation of unfair treatment gives rise to a loss of efficiency at the social level.

The firm responds to this problem by bringing the various transactions under the control of a hierarchical authority – the authority, that is, of the party which owns the firm and through ownership is entitled to make decisions over the contingencies that were not *ex ante* contractible. Unified governance supplements incomplete contracts with authority relations through the vertical and horizontal integration of the units that previously made separate contributions. The firm is therefore a special contractual form: when contracts lack provisos contingent upon unforeseen events, they can be 'completed' with the 'residual right of control' that entitles its holder to decide what should be done about decisions not *ex ante* contractible – that is, decisions 'left over' from the original contract and which become available only when unforeseen situations occur.

The residual right of control underpins authority: those parties with residual right of control may threaten the other parties to the contract with exclusion from the physical assets of the firm, thereby ensuring that *ex ante* non-contracted decisions are taken *ex post* to their own advantage. They are thus safeguarded against opportunism by the other stakeholders, for they are able to protect the expected value of their investments in situations where contract incompleteness allows for margins of discretion when residual decisions have to be taken. There is therefore an efficiency rationale for the idea of the firm as 'unified governance' of transactions: if

one party (a class of stakeholders) has made a specific investment of greater importance than those made by the others at risk, or if its exercise of 'unified governance' discourages opportunism by the others to appropriate the surplus, then that party should be granted the property right and with it the right to take 'residual' decisions. Fiduciary duties owed to the owners must guarantee that the delegated exercise of residual rights of control by the board of directors or managers will maintain or improve the efficiency of the original allocation of property rights to the selected class of stakeholders.

Abuse of authority

However, one should not underestimate the risks of the firm *qua* unified governance. There is not just one single stakeholder at risk because of contract incompleteness; it is usually the case that multiple stakeholders undertake specific investments (investments in human capital, investments of trust by consumers, investments of financial capital, investments by suppliers in raw materials, technologies and instrumental goods). Contracts with these stakeholders are also incomplete.

Yet if a firm brings its contracts with certain stakeholders (labour contracts, obligations towards and relations with minority shareholders) under the authority of a party given control over residual decisions (for example, the controlling shareholder group) – and more generally if a party is enabled by its *de facto* power to exercise discretion over *ex ante* non-contractible decisions concerning implicit or explicit contractual relations with the other stakeholders (consumers, customers, suppliers, creditors etc.) – what, one may ask, is there to ensure protection of investments and interests other than those of the controlling stakeholder? It is evident that if fiduciary duties attach *only* to ownership, those stakeholders *without* residual right of control will *not* be protected by the fiduciary duties of those who run the firm.

The inherent risk, therefore, is an 'abuse of authority' (Sacconi, 1997, 2000). Those wielding authority may use it to expropriate the specific investments of others by exploiting 'gaps' in contracts – which persist even under unified governance (in fact it simply allocates to only one stakeholder the

right to 'fill' those gaps with its discretionary decisions). Those in a position of authority, in fact, are able to threaten the other stakeholders with exclusion from access to the physical assets of the firm, or from the benefits of the contract, to the point that those other stakeholders become indifferent between accepting the expropriation and forgoing the value of their investments by withdrawing from the relation. Thus the entire surplus, including that part of it imputable to efforts and investments made by the non-controlling stakeholders, will be appropriated by the controlling party. Again, forward-looking stakeholders will be deterred from entering the hierarchical transaction with the controlling party. In general, this will undermine *legitimacy* (the rational acceptance of formal authority by the participants in the organisation) and *trust*. Various stakeholders will *ex ante* have a reduced incentive to invest (if they foresee the risk of abuse), while *ex post* they will resort to conflicting or disloyal behaviour (typically possible when asymmetry of information is inherent in the execution of some subordinate activity) in the belief that they are being subjected to abuse of authority. In the economist's jargon, this is a 'second best' state of affairs (less than optimum): all governance solutions based on the allocation of property rights to a single party may approximate social efficiency, but they can *never* fully achieve it. This much is acknowledged by the theoreticians of contractual incompleteness when they point out that the allocation of the residual right of control induces the party protected by that right to over-invest, while those not so protected are induced to under-invest, with a consequent shortfall with regard to the social optimum (Grossman and Hart, 1986; Hart, 1995).

My suggestion is therefore that when CSR is viewed as 'extended governance', it completes the firm as an institution of transactions governance (Sacconi, 2000, moreover see appendix 1). The firm's legitimacy deficit (whatever category of stakeholders is placed in control of it) is remedied if the residual control right is accompanied by further fiduciary duties towards the subjects at risk of abuse of authority and deprived of the residual control right. At the same time, this is a move towards greater social efficiency because it reduces the disincentives and social costs generated by the abuse of authority. From this perspective, 'extended governance' should comprise:

- *the residual control right* (ownership) allocated to the stakeholder with the largest investments at risk and with relatively low governance costs, as well as the right to delegate authority to professional directors and management;
- *the fiduciary duties* of those who effectively (directors and managers) towards the owners, given that these have delegated control to them;
- *the fiduciary duties of those in a position of authority in the firm (owners or managers) towards the non-controlling stakeholders*: the obligation, that is, to run the firm in a manner such that these stakeholders are not deprived of their fair shares of the surplus produced from their specific investments, and that they are not subject to negative externalities.

A theory of the constitutional contract of the firm

The fourth section of this essay outlines the theory of the constitutional contract of the firm (see also Sacconi, 2000) as the basis not only for the allocation of control over the firm - that is, the right to take discretionary decisions and appropriate the surplus - but also to include in this structure *other* rights – essentially responsibility claims in defence of stakeholders *other* than those protected by the property right. The resulting institutional structure defines the principles of the firm's governance structure consistently with the notion of CSR as a governance model with multiple fiduciary duties.

The model of the constitutional contract of the firm rests on an analogy between the social contract theories used to justify 'by agreement' both the 'legal constitution' (Buchanan, 1979) and the mutually advantageous rules of morals (Gauthier, 1986) of a large society on the one hand, and the economic theory of efficient choice of the control structure of firms, based on the idea of contractual incompleteness, on the other (Grossman and Hart, 1986; Hart and Moore, 1990; Williamson, 1975). A feature shared by these theories in particular is the sequential structure of their models whereby a 'constitution of rights' is initially established and then, in the next

phase, the parties bargain within the institutional structure selected in the light of the occurrence of events, which the constitution is unable to regulate in every detail. These events explain why some decisions are only taken in the second period but are nevertheless influenced by the choice set made available to the parties by the institutional structure selected in the initial phase. The theory of the firm expresses this situation with the concept of the 'incomplete contracting' due to unforeseen events not contractible in detail *ex ante* in the initial contract. The theory of the firm associates authority with the allocation of property rights, and I adopt it in this respect. But I also stress that authority (and therefore ownership) are legitimate only to the extent that they are accepted in the constitutional contract by all the involved parties (the stakeholders). Hence the theory of the constitutional contract of the firm is much wider in its scope than the standard theory of the firm.

Rational bargaining on firm constitutions

Assume that an economy consists of N individuals and that S of them (the stakeholders in the firm) are engaged in a joint productive activity (in various roles: employees, investors and capital-lenders, consumers, suppliers of raw materials, instrumental goods and technologies, and communities hosting an activity in a given geographical area). These S individuals constitute a coalition (for simplicity's sake also called S) whose characteristic function is super-additive: that is, by acting cooperatively they are able to produce a surplus, which would not be forthcoming if they acted separately. Of these individuals, M make specific investments, or they are 'indispensable' for specific investments to yield a surplus. The other members of S instead undertake unspecific actions or supply unspecific assets which add value to the coalition S, but they are not strictly *locked into* the coalition in order to realise the value of their investment. Coalition S, as defined here, is coextensive with the concept of *team* as used in the theory of the firm. Accordingly, ownership and authority over the team should be allocated to one of the M members of S. The other members of S are stakeholders tied to S by relations of varying degrees of intensity. The remaining N–S individuals are

indifferent to the activity in question (they are not stakeholders in the strict sense given to the term by the theory).

The model depicts a two-step collective decision-making situation among potential members of the coalition S.[6] The main collective decisions are taken at the beginning and in the third period, while in the intermediate periods individual decisions are taken and information is gathered. At time $t=0$ the allocation of rights is decided (rights not only of ownership and control but also of redress and compensation), and this determines the control structure exerted over the productive coalition S through a constitutional agreement. At time $t=1$ the right-holding individuals undertake investment decisions with a view to subsequent transactions and joint activities in the coalition. At time $t=2$ events occur which are not covered by a clause in the initial contract. At time $t=3$ a new bargaining game begins, defined for each allocation of rights and for every set of investment decisions. That is, the members of the coalition S negotiate a joint plan of action and a distribution of the surplus which reflects investments and events occurred in $t=2$. This problem of sequential collective decision-making is modelled as a compounded bargaining game G_C on the constitutional and post-constitutional choice. Its first phase is the bargaining game carried out at time $t=0$, when chosen for each player is a set of strategies by means of which a subsequent game can be played at time $t=3$. Note that this set of strategies is a subset of the strategies available in the initial game.

In the background to the constitutional choice game there is a 'state-of-nature game' to which the players will resort if they fail to agree cooperatively on a constitution. The underlying 'state-of-nature game' admits a single solution which is mutually disadvantageous to all parties, namely a sub-optimal equilibrium. In the theory-of-firm model the 'state-of-nature' is the situation that arises if contracts are renegotiated without any protection, so that the parties undergo reciprocal opportunistic behaviours made possible by incompleteness of the initial contract. Players anticipate this unpleasant outcome at the initial phase of the constitutional choice as the 'status quo' that would result in the absence of a constitutional framework. Analytically, therefore, the constitutional choice game G_C has as its admissible outcomes the resumption of the 'state-of-nature'

result, but also all the other possible outcomes in the 'state-of-nature', and all the (linear) combinations among those outcomes. In other words, the technological frontier available to the parties has not changed, but now, following agreements, the institutional arrangement makes it possible concretely to obtain all the outcomes that were previously only virtually possible, and also all the combinations among them.

It is obviously necessary to explain how binding agreements are made possible by moving from the state-of-nature game to the constitutional choice game. The explanation is that the former is a *non-cooperative* game, of 'prisoner's dilemma' type, whilst the latter G_C is a *cooperative* bargaining game where, if agreement is reached on a joint plan of action, it is certain that this plan will be implemented. Of course, there is no reason to believe that opting for a constitution rather than for concrete contracts is in itself sufficient to make agreements binding. Thus my explanation is simply that the constitutional choice game is a hypothetical (ethical) normative model in which the parties intend to 'justify' their choice of the constitution and believe that they can act on the basis of what they deem to be right. Given that they are counterfactually considering a hypothetical state of the world in which they are simply seeking a solution agreeable to all parties, one may also hypothesise that they presume themselves able to keep to the agreements reached if these have been negotiated rationally (this too is an acceptable hypothesis for an hypothetical justificatory model). How this solution may be implemented will be discussed in Part Two of this essay (see Sacconi, 2004b).

The distinctive feature of the constitutional choice game G_C is that the players (potential members of S) do not have to choose one particular joint strategy. Rather, they simply have to choose a subset of the set of admissible joint strategies (that is, a restriction on each player's set of strategies). Each subset of the strategies of the game Gc sets a limitation on the freedom of action that the players enjoy in the 'state of nature'. Thus the choice of any whatever subset of possible strategies coincides with the choice of a 'constitution'. Moreover, each subset of the joint strategies (constitution) in its turn defines a cooperative sub-game whose admissible outcomes cover only a portion of the outcomes admissible in G_C. This is a coalition game in which the players

negotiate on how much they can obtain from cooperation according to their importance for the production of surplus (investments) and according to the constitutional rights that entitle them to take decisions that may influence the final value of cooperation with the others.

Individuals who are candidates for coalition S therefore take part in a sequential game. I assume that they resolve the game by starting with the admissible outcomes of the post-constitutional phase and working backwards to the constitutional choice (backwards induction). Consequently, all the admissible outcomes and the solutions of the post-constitutional sub-games can be anticipated before the constitutional choice has been taken. This important simplification can be made in analogy to the theory of incomplete contracts (Grossman and Hart, 1986; Hart, 1995; Hart and Moore 1990; Tirole 1999), with the *caveat* that in the real world of bounded rationality and effectively incomplete contracts, the parties will counterfactually reconstruct the *ex post* situation in light of the constitutional contract they would have agreed upon if they had been able *ex ante* to foresee the *ex post* situations. They will therefore apply the abstract principle of a fair contract according to the information available at that point in time, and they will verify *ex post* whether it has been applied amid the contingencies which have arisen in the meantime.

With this caveat I therefore assume that, in the second stage, payoffs are assigned according to the solution for coalitional cooperative games known as the *Shapley value* and whereby each player obtains the expected payoff of the sum over all the possible sub-coalitions of S of the differences between the coalition value when he is the last to enter and when he does not participate, multiplied by the probability that each sub-coalitions will form. Given hypothetically each sub-game, and the relative decisions permitted by rights, players calculate the payoff assigned to each of them by the *Shapley value* (Shapley, 1953) for each bargaining game that follows every given level of investments. They therefore choose the level of investment that enables them to obtain the highest payoff, on the hypothesis that the others too will choose the level of investment at which they obtain the highest payoff. Thus for every post-constitutional sub-game there exists a univocal solution in terms of a precisely defined set of payoffs.

Moving backwards to the initial phase of the constitutional choice, the question arises as to how this phase is handled. Each player knows that the choice of a subset of strategies (a constitution) gives rise to a particular solution for the associated sub-game. The space of the feasible outcomes of the constitutional choice may therefore be regarded as the set of the solutions of all the logically possible post-constitutional sub-games. Consequently, the G_C game too can be treated as a cooperative bargaining game in which the players must agree upon a particular outcome selected within an admissible outcomes space (each point belonging to it corresponds to the solution of an alternative post-constitutional game). The constitutional choice must be made unanimously by all the potential members of S. In fact, the only rational agreement is the one that involves all the members of the large coalition S, for if this agreement is not reached they will fail in their attempt to establish a constitution, and they are doomed to play the 'state of nature' game with its sub-optimal solution $d\star$. Point $d\star$ is therefore the *status quo* of the G_C bargaining game. Consequently, the constitutional choice game is the typical cooperative bargaining game in which by unanimous agreement an efficient solution must be chosen from among all possible ones (set of Pareto outcomes), given the minimum condition that each acceptable agreement must give the parties at least what they would obtain in the *status quo* $d\star$.

Nash bargaining solution

The most accredited solution for bargaining problems of this kind is the Nash bargaining solution: that is, the point on the efficient frontier of the admissible outcome space where the product among the players' utilities is maximum net of the value to them of the *status quo* (Nash, 1950). The solution follows from very general postulates demonstrated to be coincident with various other formulations of the rationality criteria for bargaining processes among Bayesian rational players (Binmore and Dasgupta 1987; Harsanyi, 1977). Suffice it to say that if the space of the bargaining outcomes net of the *status quo* is symmetrical – that is, it includes for each player exactly all the payoffs that can be obtained from the

other players – then the solution, which lies on the efficient outcomes frontier, must itself be symmetrical. It must, that is to say, distribute the utility gains with respect to the *status quo* (the surplus) *in equal parts* among the bargaining parties. Under certain conditions of invariance of the solution (i) to changes in the units of measurement of the players' utilities (ii) to changes in the payoff space which eliminate irrelevant bargaining alternatives and (iii) to symmetric permutations of the players' positions with respect to a symmetrical payoff space, one concludes that the only solution compatible with the postulates is maximisation of the *Nash product*.

Let us consider a case with two players, 1 and 2, and let us assume that the solution is a point in space R^2 enclosed between the positive Cartesian axes U1 and U2, each of which measures the utility for a player of the cooperative game outcomes (see Figure 1 for this example). The space therefore represents the outcomes subject to bargaining in terms of their utility value for the players (i.e. their payoffs). The standard analytical assumption is that the payoff space is convex and compact. The payoff space **P** therefore has an efficient frontier (in the upper-right positive quadrant of the Cartesian plane) which represents the set of outcomes for which the players' utilities cannot be increased by an alternative agreement without reducing the utility of at least one other player. Below this frontier are agreements with respect to which gains are still possible for all; above it are outcomes unfeasible by any agreement or joint plan of action. All points in the space represent different possible values of the coalition among the two players. In fact, only when both of them agree on a solution to the game can they leave the *status quo* **$d\star$**, which is represented by an internal point of the space, so that they can benefit from cooperation. The characteristic function of the coalition between both players is therefore super-additive (it is better to agree than not to agree). Obviously, of interest are only those agreements for which there is an efficient allocation.

But at what point among those on the frontier should the agreement be reached? The Nash bargaining solution states that the players will agree on the joint strategy corresponding to the point on the frontier where the maximum product of the individual surpluses holds, i.e. $Max \Pi_i (U_i - d_i)$ (with $i = 1, 2$ denoting the various participants in the bargaining
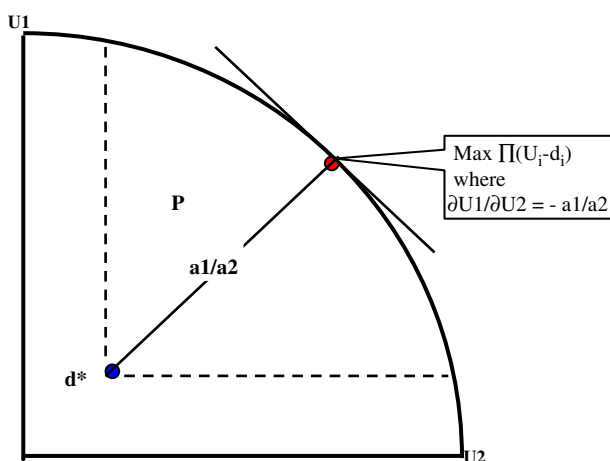
Figure 1. A symmetrical two players cooperative bargaining game and its Nash solution.

game), where U_i is the utility deriving to the generic stakeholder i from the cooperative transaction that it undertakes with the firm, and d_i is the status quo payoff coinciding with the repayment of the cost specific investments made by i in order to participate in the joint action plan (that is, i always at least recoups the cost of its specific investment). The solution assumes that bargaining should provide each player with at least a net advantage, which is the difference between the share of the surplus received and the *status quo* value. As a consequence of additional rationality postulates, these net individual advantages can be identified as being such that their *product* is the maximum among those in the set of the possible outcomes of the cooperation. We may say that this is the collective choice function adopted by the members of the coalition, in light of their bargaining, to resolve the problem of their joint action. Note that the ratio at which the shares of the surplus a1/a2 are distributed is proportional to the ratio between the marginal variations in the players' utilities $\partial U1/\partial U2 = -a1/a2$.

In the constitutional choice-bargaining game this solution has to be reached within a symmetrical outcome space **P** generated, as said, by all the virtual outcomes of the 'state of nature' and their convex combination. The space **P** equates the set of all the *logically possible* subsets of the set of strategies of the constitutional choice game – so that all the points in this space can also be interpreted as solutions for possible post-constitutional games. The Nash bargaining solution of the constitutional choice game therefore corresponds to a constitution on the basis of

which a particular post-constitutional game begins once the admissible strategies have been selected. Whilst this subgame will assure to the players payoffs consistent with their Shapley value, it also will distribute to the players equal parts of the cooperative surplus calculated with respect to the constitutional outcome space (in the units of measurement of each player). This constitution obviously distributes the set of rights – among them the right to ownership and governance within the firm (coalition S) – so that no party has an advantageous bargaining position when the post-constitutional bargaining takes place.

Rational contracting and distributive justice

What interpretation can we give to the solution of the game G_C in terms of the theory of distributive justice?

(a) *Rational bargaining as impartiality*. Rational bargaining comprises an elementary notion of impartiality of choice, given that not only do all the parties *rationally* accept the solution (which is therefore equally rational for them all) but the solution is anonymous: in fact, the Nash product remains unchanged under symmetrical permutation of place among the players. If the players change their place with respect to the set of strategies and the utilities associated with them, so that all the results that player A could previously obtain are now achievable by player B, and vice versa, then the solution will coincide with the same Nash product and it will offer to player A exactly what it previously offered to player B (and vice versa). Hence the solution is anonymous and not attached to the name or personal identity of the player. In particular, if the payoff space is symmetrical, when the players change place with respect the strategies and outcomes, the solution will not change: it is, that is to say, exactly the same point in the space and the same cooperation pattern with permuted roles. This means that the only relevant features are the possibilities to contribute to the cooperation and their evaluation in terms of the participants' utility. Let me assume the standpoint of an impartial observer who wants to find a collective solution that impartially reflects these features (and which is therefore acceptable to all). If I examine the bargaining problem from all the individual points of view, assuming the position of each participant in bargaining in turn, I reach the

conclusion that each of them accepts a solution which is exactly the same as the one accepted by all the others: the Nash bargaining solution. In other words, the Nash solution is the solution that the observer would obtain by reasoning from the point of view of *any whatever* participant.

(b) *Moralised status quo.* The impartiality of bargaining is obviously limited by the fact that it is affected by the *status quo*: that is, what the parties could have obtained in any case without cooperation will be conserved by the bargaining solution. This is a fundamental tenet of bargaining theory: why should the parties be interested in adhering to the agreement if they can obtain greater utility by staying out of it? The fact remains, however, that the surplus to be distributed is calculated within the payoff space on the basis of the *status quo*. Consequently, the better the *status quo* for a participant, the higher the payoff from bargaining. But if the status quo reflects 'force' or 'fraud', these morally arbitrary features will be preserved by the bargaining solution. But consider the actual relevance of this classic objection (Rawls, Sen and Brian Barry, for example, have made it in various ways). The hypothetical social contract expresses a model for the choice of social institutions which are antecedent to any form of *social* interaction that will be responsible – for example via the social division of labour – for costs and benefits allocated amongst the participants in social interaction. It is therefore clear that no form of *social* injustice can be represented in the *status quo*. What is to be eliminated is consequently the arbitrariness due to the reciprocal use of *natural* force and fraud in the 'state of nature'.[7] This difficulty is avoided by conventionally setting the *status quo* for each party to zero. All the effects of the damaging natural interaction among the parties must be neutralised if each of them is to agree to play the game of justifying the social institution by agreement. Zero-setting the *status quo* for all parties has another important property: no player at the outset of the constitutional bargaining game will have already borne the costs of the specific investments which *ex post* (at time *t*=3) may induce him to acquiesce to unfair payoffs in order to recover at least those costs. By contrast, the *status quo* which is taken as given when the constitutional solution is chosen ensures to each player at least the payoff that he had *before* bearing the costs of the investment (which are

instead reflected in the costs/benefits balance associated with each joint strategy). Given that in the constitutional choice I select a post-constitutional game with a specified final allocation of payoffs, the constitutional choice will never be subject to the lock-in effect that characterizes the renegotiation of contracts in the theory of the firm.

(c) *Correspondence to intuitive principles of justice.* The sequential bargaining-game solution can be given an ethical interpretation not only because of the neutrality of rational bargaining but also on the basis of the correspondence between each of the two concepts of solution I have employed and the intuitive principle of justice appropriate to the respective bargaining phase in question. The solution to each post-constitutional game according to the *Shapley value* can be interpreted as an application of the principle of *remuneration on the basis of relative contribution*. The Shapley value is in fact the linear combination (weighted with equal probability assigned to all the coalitions with the same number of members) of the marginal contributions that an individual can make to all the coalitions. On the other hand, the Nash bargaining solution – provided the units of measure for the individual utilities are assumed to be interpersonally calibrated (which is not required for simple calculation of the Nash bargaining solution) – can be interpreted as an equivalent solution to the distribution proportional to relative needs, that is, proportional to the relative intensity of variation in preference for the players at the point where the solution falls. This is the consequence of what was shown in the previous section, where I said that the ratio at which the shares of the surplus are distributed to the players is proportional to the ratio between the marginal variations in the players' utilities $\partial U1/\partial U2 = -a1/a2$. In fact, once the utility units are interpersonally calibrated, so that each unit expresses the same magnitude of preference for both the players, the ratio between their marginal variation measures the players' relative needs (see Brock, 1979; Sacconi 1991, 2000).

The twofold ethical characterisation of the bargaining solutions matches the different nature of the problems of collective choice modelled by the post-constitutional games on the one hand, and the constitutional choice game G_C on the other. Before they play a post-constitutional sub-game, the parties undertake their specific investments bearing in mind

the guarantees offered by the constitution in regard to their possibilities of reaping the benefits of cooperation. They then calculate the effect of their participation in each possible sub-coalition of S, and finally contract with S the part due to them for concluding an agreement which will enable S to pursue its best joint strategy associated with which is a super-additive production function (or characteristic function). The solution of each sub-game distributes benefits to which the players have already contributed through their investment decisions and through their decision to join the coalition S. Therefore, appropriate at this point is the distribution criterion based on *relative contribution* or, put otherwise, *relative merits*. Instead, in the case of the constitutional bargaining game G_C, none of the parties subscribing to the agreement has yet contributed anything, so that the merit or relative contribution criterion does not seem to be a valid criterion of distributive justice in this case. Chosen in G_C is the constitution on the basis of which the investment decisions will be taken. What the various players will be willing to contribute depends on which constitution is chosen. These rights-for-incentives, however, must be incorporated into an agreement among participants in the constitutional bargaining phase, which considers only what is relevant from their current point of view. In the absence of any relevance of merit, in this case only *needs* can matter for the players' agreement. Hence an appropriate criterion for the solution will refer to the relative needs of the parties in regard to what will subsequently enable them to contribute to the cooperative production.

To conclude, the solution to the game of constitutional choice consists of the following *rule for constitutional choice*:

(i) *select* a socially Pareto *efficient* constitution calculated on the basis of the particular *status quo* (0, 0) which

(ii) *distributes* the surplus generated by the cooperation among the members of S in *proportion* to their *relative needs* if the distribution is seen in the context of the constitutional choice (with respect to the payoffs space P of the G_C constitutional choice),

(iii) but also *proportionally* to their *relative contributions*, if seen in the context of the post-con-

stitutional choice, which occurs in the coalition sub-game that begins after the constitution has been chosen.

Exclusive property rights and the duty to compensate non-controlling parties

We have thus far considered the more abstract case in which *every logically* possible constitution is subject to constitutional choice. In this case, every point in the payoff space of the constitutional choice game corresponds to the solution of an admissible constitution (subset of strategies). This would be a world in which it is possible to allocate decision rights in whatever proportion among the parties. In other words, institutions that greatly restrict freedom are just as possible as extremely liberal ones, and likewise institutions which impose every intermediate restrictions or which grant rights to a greater or lesser extent to one or other participant. Given that the choice can be made from such a wide range of options, the achievable institutions would be perfectly efficient and fair, and they would not be subject to the second-best results typical of the theory of the firm.

But hypothesise more realistically – as instead suggested by the modern theory of property rights – that only a certain number of restrictions on the set of the strategies of the base G_C game are institutionally feasible. I shall regard as institutionally feasible a constitution under which a relationship of authority can be established whereby any contract made between the parties can be enforced and any gap in *ex ante* contracts can be completed *ex post*. Let us assume that only exclusive allocations of property rights on all the physical assets of the firm are institutionally feasible. Connected to this is the possibility of assigning all authority to some or other party, but not intermediate degrees of authority (as in the egalitarian solution found previously). Let us therefore assume that the ownership arrangements allowed by the feasible constitutions are such as to bias post-constitutional bargaining heavily in favour of one or other party. Corresponding to these constitutions are particular post-constitutional games whose admissible outcomes all together cover only a portion of the outcome space obtained in G_C from

the original 'state of nature' game. The salient aspect of this situation is that the Nash bargaining solution with respect to the all-inclusive payoff space of the G_C game may now not coincide with the solution of any of the institutionally feasible sub-games, simply because the choice must fall within the set of *institutionally feasible* solutions, setting aside the other outcomes as 'Utopian' (even though they are more efficient and fairer).

How should we deal with the constitutional choice in this imperfect world? If one party is able to ensure a higher surplus when endowed with ownership, he may be able to purchase the property right from the other party. If we take as the *status quo* an arrangement of rights under which one party has ownership, we can verify that the alternative arrangement of property rights is more efficient if it is possible to find a utility side-payment which enables the second party to induce the first to cede to him the property right. This entails choosing the feasible post-constitutional sub-game whose solution is closest to the Pareto frontier of the game.

However, the rational consent of the other agents must also be accounted for in the context of the constitutional bargaining model. The other agents may be ready to accept that the player making the most valuable investment or who is most indispensable to realising the value of these investments should be given property rights. Nevertheless, making the constitutional choice requires the consent of all the players whose membership in the coalition ensures the super-additivity of the value of S (whether they make specific investments, are indispensable agents with respect to some assets or ordinary members of S who add some value to the coalition).

Fortunately, we can still calculate the *fair* distribution that recognises the legitimate claims of the parties. The initial position is 'without rights', so that the appropriate *status quo* of an S person game is therefore 0 for each player. Contribution-based claims are not relevant here because in G_C the contributions have not yet been made. Investments come into play only before the sub-games are played. Distribution according to the criterion of relative need can now be calculated by taking as the set of feasible *outcomes* the convex hull of all the linear combination of points in the payoff spaces defined by the institutionally feasible games and the *status quo*, in a two person case (0,0). Within this set

of points, the Nash bargaining solution permits isolation of a fair *payoff* distribution. This solution is clearly different from the constitutional contract in the Utopian context, since in general the combination of the two or more payoff spaces relative to institutionally feasible games (constitutions) G_i is only a subset of the payoff space of the constitutional choice game G_C and does not necessarily includes all the north-east frontier of the G_C payoff space(see Figure 2 for a two-person, two-feasible-constitution case).

The problem, however, is that neither one of the solutions of feasible constitutional sub-games may even correspond to this recalculation of the Nash bargaining solution games, the fair solution is a linear combination of their two solutions, that is, a 'midway' between them, which may not belong to either of the two spaces of feasible games). Hence the solution that can be suggested is based on a *utility side-payment*. In order to get from the *status quo* (0,0) to the most efficient solution of a particular sub-game, the player who wants to obtain a position of advantage must underwrite a utility side-payment. On conclusion of this payment, the distributions of *payoffs* will conform to the criterion of distribution proportional to relative need, despite the fact that with this particular arrangement of property rights he is able to obtain a larger portion of the surplus than the other parties. By way of example (see again Figure 2), consider the case of two players. If A is more efficient (because his investment is more important), this means that there is one feasible constitution C1 which assigns ownership to A and defines a sub-game G_1 with a payoff space P1 whose solution is more efficient than that of the alternative constitution C2 which assigns the property to B and defines a sub-game G_2 with payoff space P2. Thus, for reasons of incentive, ownership must be given to A. However, in order to obtain ownership A must still take account of B's claims and compensate him.

The constitutional contract stipulates that the fair distribution must correspond to the point in which the two members of the cooperative coalition will be remunerated in proportion to their relative needs. The solution is calculated, as in Figure 2, within the payoff space P3 generated as the convex hull of the linear combinations of the outcomes associated with the actually feasible constitutions. This requires utility side-payments by which A compensates B until the cooperative surplus is distributed according to the
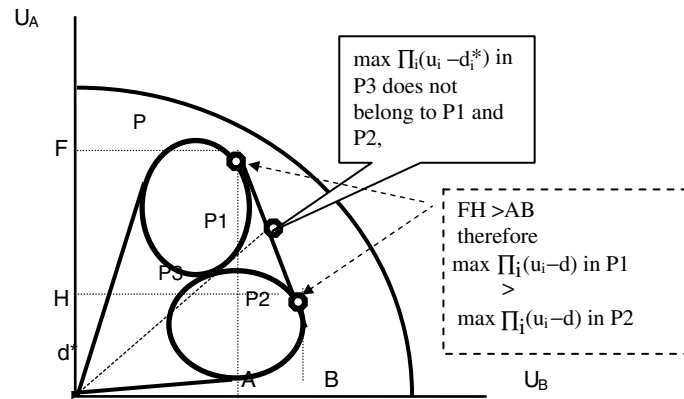
Figure 2. P1 and P2 are payoff spaces for the institutionally feasible Constitutions C1 and C2, the solution to P3 is the constitutional contract which can be reached only by a utility side payment.

criterion of relative need. The idea of compensation obviously requires the firm's institutional structure to incorporate a notion of 'social responsibility', by which is meant *the obligation of the party to whom ownership is allocated to compensate the other parties to the social contract for the advantage that he has acquired by being granted authority over the firm*. Even though, under the outcome resulting immediately from the constitutional sub-game selected, the party with authority has legal means to appropriate an extra-rent, this extra-rent must be reimbursed in accordance with the principle of constitutional choice based on relative needs.

The constitutional contract therefore stipulates the following institutional structure of the firm in the *imperfect* world of institutionally feasible constitutions:

(i) Assuming that the N–S members remain indifferent and therefore do not undergo negative external effects from the firm.

(ii) The firm constituted by the coalition S will be headed by the party under whose governance the Shapley-value solution distributes to the various stakeholders an aggregate value that is greater than the alternatives;

(iii) This governing party will have the right to take residual decisions or delegate them to the management and take the residual on the proviso that

(iv) The cooperative surplus made possible by the constitutional arrangement selected is measured from a *status quo* including 'cover-age' of the costs borne by each stakeholder in making its specific investment (that is, it is free from the 'lock-in' effect),

(v) Each member of the coalition S obtains a share of the surplus that reflects its relative contribution to the value of the coalition S in the institutional form selected,

(vi) To which must be added (or subtracted) a quota by virtue of which the final distribution is equal to the distribution proportional to relative needs defined in the constitutional phase with respect to the set of institutionally feasible outcomes.

This concludes my deduction of the institutional framework for corporate governance of the socially responsible firm from a normative model of rational bargaining.

An objective-function for the firm

The main objection brought against CSR is that the multi-stakeholder approach to the firm's governance leaves management without a clearly stated and uniquely defined 'bottom line' to be used as the benchmark against which to evaluate its success or failure (Jensen, 2001). The consequence, the argument runs, is that the management exploits this situation to pursue its personal interests. It comes up with every possible device to conceal its essentially self-dealing behaviour behind the interests of some or other stakeholder. Whereas, the critics of CSR

maintain, it is easy to check the managerial strategy (among the alternatives available at any particular time) against the criterion of increasing the firm's profits as much as possible, this is not the case of 'stakeholder value', since this consists of numerous dimensions to maximise simultaneously (the interests of the various stakeholders). Consequently, stakeholder value contains an intrinsic contradiction – the pursuit of conflicting, or at any rate divergent, goals at the same time – so that the choice of which strategy to adopt is ultimately left to mere managerial discretion.[8] In sum, this objection amounts to saying that the multi-stakeholder approach cannot provide the firm with prescriptive guidance as clear as profit maximisation.

It should be clear, however, that this objection does not apply to the model of the social contract of the firm proposed here – which by no means ignores the existence of a distributive conflict, and instead resolves it by identifying a bargaining equilibrium that permits mutual cooperation among the members of the team. Once the firm is understood as a team of participants with specific investments at stake, the metaphor of a 'bargaining cooperative game' among multiple stakeholders can be used. Stakeholders must agree on a shared action plan (a joint strategy), which allocates tasks among the members of the team so that the contribution of each of them is efficient (because it produces the maximum surplus net of each stakeholder's costs). The 'bargaining cooperative game' played by the stakeholders is typically one of mixed interests. Although it is in their common interest to cooperate, because this enables them to produce a surplus that would otherwise be impossible, conflict nevertheless persists among the stakeholders over the distribution of the value created. 'Governance' and strategic management consequently consist in solution of the problems of identifying the joint strategy that the stakeholders (as the players in the cooperative game) may utilise to coordinate themselves – so that strategic management can reduce bargaining costs (time, conflict etc.) and the costs of gathering information on the alternatives available and on the intentions of each players concerning cooperation.

As we saw in the previous section, the counterpart to the philosophical contractarian model is a mathematical model of rational bargaining. If the bargaining outcome space is well defined and if the bar-

Nash or Harsanyi–Zeuthen postulates of bargaining theory are accepted, the solution is defined uniquely, so that the set of admissible solutions reduces to one single alternative corresponding to the Nash bargaining solution (Harsanyi, 1977; Nash, 1950). In any event, various theories of bargaining yield solutions which resemble each other quite closely – see Gauthier (1986), Kalai and Smorodinsky (1975) and Rubinstein (1987) – because they are slight variations on the basic Nash's solution; and for the purposes of this study, identifying a set of 'close' solutions compatible with the idea of rational bargaining seems sufficient.

Note that the bargaining solution is just as computable as the firm's profit function in microeconomic theory. Hence I can simply substitute maximisation of the function which assigns the solution to the bargaining game for profit maximisation, and assume this as the firm's computable objective-function. This solution is simultaneously an answer to both the problem of cooperation and distributive conflict among the stakeholders. Thus the quest for simultaneous satisfaction of multiple possibly conflicting objectives is accomplished by maximisation of a unique solution function defined on the outcome space.

Note also that the bargaining equilibrium does not need operational interpersonal comparisons of utility (which are operationally very problematic) in order to be calculated (interpersonal comparisons can be confined to the interpretive level[9]). It is therefore not informatively over-demanding as regards what the manager needs to know about the intensity of stakeholders' preferences. It obeys, in fact, simple axioms of individual rationality in bargaining – like the decision to grant a concession according to expected personal utility, given the probability that the counterparty will accept or refuse it, or that a player will not make a concession that he or she would not expect the counterparty to make in a similar situation – and conditions of mutually expected rationality. Of course, if these postulates are taken literally, they can be criticised as unrealistic; and it is likely that in the real world agents are unable to maximise or to estimate probabilities coherently, or to make accurate forecasts about the rational behaviour of others. But what matters for my purposes here is that these postulates are a good approximation of rational behaviour in a

hypothetical (ideal) bargaining situation among stakeholders, while at the same time they provide prescriptive guidance for strategic management – guidance no less prescriptive and clear than the profit maximisation advocated by critics of CSR like Michael Jensen. Of course, bounded rationality is still a major issue, which needs to be faced when implementation will come under scrutiny (see Sacconi 2004b).

The social contract as potential explanation of the firm's emergence

Thus far, the social contract has been presented as a normative theory by which to identify the terms of an agreement that would be acceptable from both a rational bargaining perspective and an impartial standpoint – that is, from the point of view of any whatever stakeholder. However, social contract theory can also furnish a reconstruction – understood as a 'potential explanation' – of how bargaining may give rise to a firm with *both* fiduciary duties towards the owners *and* social responsibility (i.e. further fiduciary duties) towards all the stakeholders.

Consider the 'state of nature' prior to the creation of the firm. Bilateral transactions among stakeholders regulated by incomplete contracts are subject to reciprocal opportunistic behaviour, with the consequence that prohibitive bargaining costs render them inefficient. At the same time, the parties to those transactions are entirely unconcerned about the negative external effects of their transactions on other agents, who although they do not participate, are nevertheless affected. This is a Hobbesian scenario in which the life of those involved in economic transactions is "solitary, poor, nasty, brutish and short".[10] The stakeholders thus address the problem of creating an association whereby all their transactions can be undertaken in accordance with agreed-to rules and are therefore not subject to contract-costs, while at the same time the negative effects on those who do not participate in the benefits from the transactions are reduced to the minimum. The 'First Social Contract' of the firm (*pactum unionis*) is nothing other than the agreement, which the stakeholders reach *among themselves* to set up this association. They negotiate on the association's constitution, which

consists in a common plan of action (joint strategy) to which each of them contributes either by making a positive effort or by simply refraining from applying his/her veto. This *first social contract of the firm* stipulates as follows:

(a) rejection of shared plans of action which generate negative externalities for those not participating in the cooperative venture or, if these negative externalities are essential for the production of the cooperative surplus, a compensation of third parties so that they are rendered neutral;
(b) production of the maximum surplus possible (difference between the value of the product for its consumers, who also belong to the association, and the costs sustained by each stakeholder to provide inputs for producing it);
(c) a distribution of the surplus which is 'fair', or rationally acceptable to each stakeholder in a bargaining process free from force or fraud and based on an equitable *status quo*, that is, considering the surplus net of the costs of specific investments.

However, if an attempt is made to reach this form of an ideal association (the 'just firm') which eliminates all the participants' contract-costs, arrived at in practice is an organisational form which is found to be inefficient from the point of view of its governance costs. Stakeholders discover, for example, that the general assembly of all members is unable to take coherent decisions in a reasonable amount of time. In the absence of a monitoring system, even if the members of the association have established fair shares of the surplus to be distributed among them, they have an incentive to act opportunistically and not to play their part. Coordination problems arise on how the joint strategy can be implemented under changing circumstances, which may alter beliefs and reciprocal expectations asymmetrically. The stakeholders consequently draw up a *second social contract* of the firm (*pactum subjections*)[11] by which they constitute, in the proper sense of the term, a governance structure for the association. It is only now that the association becomes a hierarchical structure.

The second social contract provides that authority should be delegated to the stakeholder most efficient in performing governance functions (the taking of

residual decisions, devising coordination solutions as circumstances change, monitoring, the enactment of sanctions, excluding potential free riders etc.). For this reason, it can also be seen as a contract *between the stakeholders and* those who are given control over the firm (social contract *with the firm*). After comparative examination of the governance costs associated to each stakeholder running the firm, the stakeholder with the lowest costs is selected and assigned ownership, and is therefore the one to which the right of governing the association is delegated (Hansmann, 1996). This class, which is remunerated with the *residual*, also is authorised to delegate some discretionary decisions and to appoint those who will be in the authority position of running the firm. *Prima facie*, their authority will be effectively constituted – that is, the delegation will remain valid – as long as they comply with what I call

- *Narrow fiduciary proviso*: the owners are remunerated with the maximum residual revenue possible (in forms compatible with the diverse nature of the controlling stakeholder) in the light of conditions obtaining in the firm's specific market.

However, it is evident that this proviso entails that the positions of the other stakeholders change. Formerly co-equal members of the association, they are now subject in various ways to the discretionary decisions taken by the stakeholder invested with authority, and by the appointed directors. Unlike in the standard economic theory of the firm, in the social contract theory the risk of the abuse of authority can be squarely faced. The *second social contract* is therefore conceived in a manner such that this cost of hierarchy is forestalled as well. Hence, under the second social contract, stakeholders agree to submit to authority, thereby rendering it effective, if the contract stipulates that the firm's new governance structure will comply with *fiduciary duties* towards all the stakeholders (owners and non-owners).

- Extended fiduciary proviso:

(i) *Towards non-owners*: The firm must abstain from activities which impose negative external effects on stakeholders not party to trans-

actions, or compensate them so that they remain neutral. Moreover, the firm must remunerate the stakeholders participating in the firm's transactions with pay-offs (monetary or of other kinds, for example in terms of the quantity, quality and prices of goods, services, working conditions etc.) which taken a fair *status quo* for granted, must contain a part of the surplus (assuming that this is positive) such to approximate fair/efficient shares as envisaged by the first social contract.[12]

(ii) *Toward owners*: The firm must remunerate the owners with the maximum residual compatible with fair remuneration – as defined by the first social contract – of the efficient contributions made by all the other stakeholders.

The dependence of the narrow proviso on the extended proviso in the second social contract reflects the sequential structure of the constitutional model developed in section four. There the implementation of an ownership structure in the post-constitutional phase – able to remunerate merits and incentive investments – was compatible with the choice made from the first-phase constitutional viewpoint in which the social contract on institutions was consistent with the criterion of stakeholders' relative needs. Here, instead, the second social contract solves the problem of minimizing governance costs and allocating rent under the constraint of satisfying the first social contact, which concerns the constitution of the productive association, or team, and is identified by a cooperative bargaining solution. It consequently must also be coherent with the relative needs distribution principle.

Conclusion

Normative stakeholder theories have failed in various ways to specify a criterion for striking a balance among a firm's stakeholders. This is because they have not adequately addressed the problem from the point of view of designing the institutional governance structure of the firm: that is, the complex set of rights which establishes the legitimate claims (of various kinds) of both the stakeholders with

ownership and control and the other stakeholders that in various ways participate in the firm, exchange with it or simply are subjected to external effects. To do so, they should have neither restricted themselves to the managerial (i.e. micro) level, however essential it may be, nor excessively enlarged their scope to include the macro-social contract as a whole. Instead, they should have examined the ethical design of the firm as a particular social institution (i.e. at the meso level, see also Hendry, 2001 on this point). This design must necessarily draw upon the economic and legal models of the firm. The theory of the constitutional contract of the firm offers solutions to these problems. It is better than the alternatives – for example Donaldson and Dunfee (1995) – because it explains how a firm may be created by agreement among the stakeholders, simultaneously considering efficiency and fairness and drawing on a formal model of rational bargaining that enables univocal solutions to be reached. Accordingly, the firm is an institution that may come into being in relative isolation from other institutions, provided that the social contract protects stakeholders in the broad sense against external effects. It thus makes it possible to propose an institutional arrangement, which entails a substantial reform of the governance structure of the firm in respect to conventional models.

From an *economic* point of view, the institutional arrangement selected by the constitutional contract of the firm serves the purpose of achieving greater *social efficiency*. The investment decisions of each agent, in fact, will be made with a view to compensation and redress, to which incentives will adjust as a consequence. That is, the owner will not over-invest in order to appropriate extra-rent, while the parties under his authority will not under-invest due to the risk of being expropriated. From the *legal* point of view, it furnishes a definition of the *multiple fiduciary duties* of the board of directors (and *a fortiori* of the owners) of the firm towards the stakeholders, so that conflicting claims are not only explicitly considered but also balanced against each other in accordance with a hypothetical principle of agreement that the parties would have accepted *ex ante* when the firm was founded if all the information available now had been considered at that time. From the *ethical* point of view, because the solution proposed results from a process of hypothetical bargaining, it is *neutral*. It does not reflect any

arbitrariness in the bargaining *status quo*, and it also fulfils two intuitive principles of distributive justice. For reasons of realism, it is chosen from among the *institutionally feasible* arrangements. That is to say, this is not a Utopian theory, but rather a theory constrained by the need to give a viable design to the economic institutions (and which for example envisages exclusive property rights in the form that we have seen). The structure of rights and duties is deduced and justified endogenously with the simple idea of a rational agreement; it is not imposed on the basis of a mere intuition of what society as a whole would require of the firm. It does not suffer from the normative indeterminacy of other normative stakeholder theories.

Appendix 1

I have proposed in previous works (see Sacconi, 1991) a social contract view of the firm's ownership and managerial ethics based on a re-examination of the theory of firm, as well as the notion of extended fiduciary duties (see also Sacconi, 1999, 2000). The cooperative-game-theory of the firm put forward by Mashairo Aoki (1984) can be taken as the path breaking work in this theorizing on the firm. When intervening in a discussion about the stakeholder approach to company law (see also Chapman, 1993; Daniels, 1993; Machey and Miller, 1993; Romano, 1993), Oliver Hart himself has recognised that the risk that non-controlling stakeholders may be subjected to contracting costs by those who own the firm would justify the extension by some corporate statutes of fiduciary duties also to the stakeholders at risk (Hart, 1993).Thereafter, convergence to a similar model arises from the merger of the incomplete contract model and Alchian and Demestz's team production theory of the firm. Hence the firm can be seen as a 'nexus' of specific investments regulated by incomplete contracts and a governance structure, rather than as a nexus of complete contracts, (Rajan and Zingales, 2000; Zingales, 1998). Based on a similar view, which combines different theories of the firm, is the model of multi-stakeholder governance developed by Margaret Blair and Lynn Stout, which sees the purpose of corporate governance structures as being prevention of opportunistic behaviour among the members of the team that

make specific investments. When applied to a public company, this model translates into a board of directors acting as a mediating hierarchy: an authority system charged with the task of striking the appropriate balance in the protection of diverse interests (see Blair and Stout 1999). The (controversial) legal basis for this form of 'impartial governance' exercised by the board of directors and by management in the US joint-stock company is the 'business judgement doctrine': the manager's use of a standard of professional conduct which insulates his/her choices against claims by shareholders (see Blair and Stout, 1999; but also see Meese 2002). Similarly, on a view of the firm as stakeholders' productive team (Kaufman, 2002), the board of directors has been seen as a governance structure representing the point of view of all those stakeholders who (a) contribute to creating value; (b) undertake non-diversifiable risks; (c) possess strategic information (Kaufman et al., 2003).

Notes

[1]   In criticizing both Harsanyi and Rawls for their use of individual decision theory in modelling social justice, Binmore (1989) argues that an *ex ante* social contract under the 'veil of ignorance', i.e. reached from an impersonal and impartial standpoint, should be better modelled as a (at least two-player) bargaining game over the intersection of the outcomes spaces of two typical cooperative Nash bargaining problems- i.e. the symmetric intersecting region resulting form the spaces generated by the symmetric permutation of the axes representing the players' utility assessments with respect to a primitive outcomes space. A symmetric permutation is what gives a precise representation to the idea of impartiality, e.g. seeing the same bargaining problem under a 'veil of ignorance', neutral with respect to individual identities. Moreover, the symmetric space of outcomes − resulting from the intersection of the spaces generated by the axes' permutation − can also be interpreted in a completely different way from the *ex post* perspective concerning the underlying 'game of life'. The *ex post* rationality of the social contract − when players have returned from the hypothetical position to the real game of life − is checked through a non-cooperative-game analysis of the underlying situation which seeks to verify whether the social contract (struck under a 'veil of ignorance') may coincide with a Nash equilibrium of a non-cooperative game. Binmore models the

underlying 'game of life' as an evolutionary repeated game whose combinations of evolutionary stable strategies coincides with the set of Nash equilibria identifiable in the static game representing the situation in which the social contract has to be put in practice. These non-cooperative equilibria, with their evolutionary explanation, moreover are the same as the set of outcomes included in the intersection over which ranges the *ex ante* bargain (see Binmore 2005).

[2]   A paragon of this indeterminacy is also the Kantian-like (and hence in some sense also contractarian) theory of the firm put forward by Norman Bowie (1999) in so far as it attempts no more than to define some generic standards but is unwilling to single out the governance structure of the firm according to the Kantian view.

[3]   For example the EU commission states: "By stating their social responsibility and voluntarily taking on commitments which go beyond common regulatory and conventional requirements (...), companies endeavour (...) to embrace an *open governance*, reconciling interests of various stakeholders in an overall approach of quality and sustainability" (Promoting a European Framework for CSR, European Commission, Green Paper, p. 4, Brussels, 18.7.2001, emphasis added). See also OECD, *Principles of Corporate Governance*, chapter 3, April, 1999.

[4]   On fiduciary duties see Flannigan (1989).

[5]   At first sight, it might be objected that many stakeholders, in both the 'strict' and 'broad' senses, do not have relations with a firm such that they formally delegate authority to those who run it (for example, they do not vote), with the consequence that the fiduciary duties as defined earlier do not apply to them. However, in the model of the social contract as a hypothetical explanation of the origin of the firm − see Section 6 − all the stakeholders participate in the 'firm's second social contract', with the consequence that their trust constitutes the authority of the firm's owner and manager. This also explains how the authority of the latter may be accepted by these subjects. Moreover, the hypothetical social contract is typically used to explain how authority − that is, legitimate power − may come about at both the political and organizational levels: see Green (1990) and Raz (1985). For a discussion of managerial authority see McMahon (1989) and Sacconi (1991).

[6]   Here I elaborate on an model developed by Horace Brock (1978, 1979) who suggested the idea of two bargaining games in sequence, each endowed with its proper solution concept.

[7]   Gauthier (1986) discusses the idea of the "Lockean proviso" as a moralisation for the bargaining status quo; my point differs slightly in that I introduce within the

players' legitimate pre-bargaining claims also the coverage of any costs due to efficient specific investments.

[8] This danger is also stressed by Tirole (2001), who, however, recognises the relevance of the stakeholder approach to corporate governance.

[9] See Brock (1979) and Sacconi (1991).

[10] See Hobbes, *Leviathan*, (1651), part 1, chapter 13.

[11] Interestingly, also Blair and Stout (1999) adopt the analogy between the firm and the two social contracts typical of the social contract tradition.

[12] Note that meant here is remuneration in utility and not necessarily in money. Put in economic parlance, this remuneration consists of the consumer rent, the producer rent, the worker rent and so on, accruing to each of them from the firm's transactions. This means that some stakeholders may not want to receive monetary benefits from the firm, but rather improvements in working conditions or in purchasing power, in the quality of goods and services, of contractual conditions, etc., to which the shares of the surplus are in any case devoted.

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