



Journal of Economics and Business
Vol. V – 2002, No 2 (173 - 196)

Corporate Governance and Governance Paradigms¹

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Abstract

Three main governance perspectives exist. It is difficult to integrate them, since they consider the nature and functions of the firm in dissimilar ways and originate different governance choices. The first of these is the standard shareholder value analysis, which concentrates on the consequences of the separation between ownership and control and of contract incompleteness. With dispersed ownership, the crucial problem of corporate governance is to give shareholders proper incentives to supply firms with capital. The solution is to allocate control rights to shareholders, make information standardized, transparent and free and rely on the market for corporate control. The second is

¹ E-mail: bdallago@risc1.gelso.unim.it. The research on which this paper is based has been financially sponsored by the Italian Ministry for the University and Scientific-Technological Research (MURST) and has benefited from discussion with Emanuele Rossi (University of Trento), the participants at the conference on Institutional and Organisational Dynamics in the Post-socialist Transformation, Amiens, 24-25 January 2002 and the workshop on "Infrastrutture, competitività, livelli di governo: conoscenza e sviluppo della nuova economia", 21 June 2002, Treviso. I profited from useful suggestions from James Angresano (Albertson College), Nicola De Liso (University of Lecce) and two anonymous referees

the stakeholder interest perspective according to which, the firm includes different stakeholders who have to implement some kind of firm specific investment. The firm is seen as a coalition of different competences, capabilities, roles and interests and corporate governance is concerned with how the allocation of residual rights of control to different stakeholders affects economic performance. And thirdly is the (post-)Schumpeterian innovative firm perspective, which concentrates on the governance of the process through which resources are developed as well as utilized in the economy. A system of corporate governance supports innovation by generating financial commitment, organizational integration and insider control.

KEYWORDS: Corporate governance, shareholders, stakeholders, innovation

JEL classification: D23, G34, P12

The firm and its governance

While standard economics supposes that the economy is co-ordinated by the price mechanism – hence no explicit governance problem is involved – Coase has convincingly proved that this description is only partial. Once the price mechanism is insufficient to co-ordinate decision-making and hierarchies play an irreplaceable role, corporate governance comes to the forefront. The literature following from Coase's path-breaking contribution splits this problem into two parts: a) how are the firm boundaries determined? and b) given those boundaries, how are the different constituents of the firm co-ordinated and the residual income allocated or, in one word, how is governance? Within this framework, the dynamic aspects of the issue seldom find mention, let alone proper treatment.

By corporate governance is meant, in general terms, the way in which the crucial components of the firm are organized, co-ordinated, and motivated to contribute to the common goal and to adapt to change. This has basically to do with the definition and allocation of the decision-making power and control within the firm: who has the power to decide what. This in turn determines the allocation of the residual income. Decision-making power implies rights (property rights, to begin with) and determines duties. The latter may be defined in contracts or in other ways (e.g. they can be determined by the economic value of reputation, by tradition or by threat and violence). However, decision-making is not enough and governance must also deal both with

motivations, incentives, organization and co-ordination of those who have some particular relation to the firm, and with the process of change.

Determining which is the best solution to the corporate governance problem is not a simple matter, since it is not clear which are the relevant boundaries of the firm. First, the firm includes a variety of actors: equity (shareholders) and debt (creditors) investors, suppliers of venture capital, boards of directors, managers, offices, subsidiaries, affiliates and representatives, employees, the state, different kinds of other stakeholders (such as suppliers, buyers, local communities and governments, etc.). Each of these actors has rights, preferences, and decision-making power *de jure* or *de facto*. In short, each of them influences the firm performance and value. Second, the boundaries of the firm are ever changing following adaptation to changing environment (economic, social, political), the balance of bargaining or decision-making power within the firm, modification in laws and regulation, or the changing relative prices of production factors.

Although already known to previous scholars, such as Adam Smith, the modern idea of corporate governance started with Berle and Means (1932). In their classical work, they celebrated the decline of the traditional family ownership. With the development of large multi-divisional corporations the key player became salaried managers and multi-divisional corporations were run according to the staff-and-line principle.²

The autonomy of managers took substance in two different ways. In the United States, the power of managers co-existed with dispersed patterns of shareholding. This was indeed the basis of separation of ownership and control. In Germany and most of continental Europe it was cross-shareholding among firms, the silent support of bankers and, in some countries, the assent of the Treasury and/or the Ministry of Industry that granted managers freedom of maneuver.

Although direct support and control was easy to explain and how it worked via voice easy to understand, more controversial was the case of dispersed ownership. The theoretical answer was given in the 1970s with the agency

² *Since then many economists supported a wrong thesis, namely that the widely held corporation is the norm in developed capitalist countries. That this thesis is closer to be the exception than the norm became clear much later, at the end of the century, when comparative research became possible thanks to greater availability of data (La Porta et al., 1999). However, it is undisputed that widely held corporations play a role in national and the international economies that goes well beyond their number and contribution to employment or GDP.*

theory (Jensen and Meckling, 1976). However, the direct control of managers is not without problems. While with dispersed ownership managers may be risk prone if not sufficiently controlled and may free ride on the owners' resources, with concentrated ownership managers are under the direct and continuous control of powerful owners. This may attenuate the managers' willingness to innovate and take risk. The solution lies in the concentrated ownership itself. When powerful owners put all or most of their eggs in one basket, they have great interest in the basket being effective and efficient in protecting their interests. Since withdrawing investment from one particular firm in illiquid markets may be very costly, they are interested in the long-run performance of the firm.

Grossman and Hart (1988) went beyond the agency explanation trying to generalize the optimality of a pure market solution. From their point of view the problem of corporate governance descends from the economic impossibility to write complete contracts. Contract incompleteness gives the parties bargaining power and a certain degree of discretion and opportunities for free riding over the quasi-rents generated by the firm. Discretion in incomplete contracts renders important the allocation of residual rights of control in unspecified contingencies. This allocation is devised through corporate governance, which includes the set of conditions that shape the ex post bargaining over the quasi-rents generated by a firm with incomplete contracts. Since capital is more difficult to control when shareholders are dispersed and a substantial part of the managers' investment is firm specific, shareholders are the prime candidate for the allocating of control rights: to convince them to enter the firm and remain loyal.

The standard analysis of corporate governance summarized so far is somehow at odds with history and reality, and separates the explanation of distribution from production. It disregards that the integration of transactions in the firm brings bargaining under the corporate umbrella, among managers, not owners. In fact, the integrated firm comprises two tiers of agency relationships: at the top between corporate headquarters and investors, and below that between corporate headquarters and division managers. To understand the effect of this integration, one must study the bargaining processes among the two latter kinds of agents (Bolton and Scharfstein, 1998) The standard analysis also has difficulties in explaining two crucial developments: a) the ageing of population and the increasing role of institutional investors in a globalizing economy (Aglietta, 2000); and b) firms depend increasingly on highly qualified and possibly scarce human capabilities and knowledge.

The eclectic theory of the firm has tried to analyze corporate governance in this more complex way, attributing particular relevance to the role of stakeholders. It describes the firm, particularly in advanced industries, as a coalition of different competencies and capabilities where stakeholders must implement long-term firm-specific investment. According to that, the allocation of residual rights of control appears necessary in order to avoid the danger that shareholders and managers free ride on that investment (Pagano and Rowthorn, 1997). In fact, if that investment is not protected, stakeholders would not invest and the firm performance and value would suffer consequently.

These explanations leave the door open for intercountry differences in corporate governance.³ The important line of analysis of “law and finance” explains these differences by the nature of the legal systems (cf. e.g. R. La Porta *et al.* 1999, A. Shleifer and Vishny 1997): the legal origin explains differences in corporate law and the level of investor protection, hence differences in financial arrangements and ownership concentration.⁴ Differential access to finance and capital costs follow, that in turn determine corporate behaviour and consequently corporate performance. The different types of corporate governance are adaptations to different legal origins.

According to a different point of view, different regulatory environments – that are necessary to determine the rights and obligations of market participants, hence their opportunity costs and incentives - may result in dissimilar institutional settings (market imperfections) of factor markets. These originate different kinds of market inefficiencies and consequently distinct modes of organizing factors, markets and different requirements for corporate governance. From this, variety of corporate governance systems descends (H.M. Dietl, 1998 presents such an interpretation concerning capital markets).

Another explanation comes from Tylecote and Conesa (1999), who find that there is a clear dynamic relation between the industrial structure of a country and its system of governance. This is so because the effective governance of innovating firms requires capacity to deal with the novelty, the visibility and the appropriability of innovation. Since these problems vary among industrial sectors, there is a direct relation between governance and a country’s industrial specialization.

³ *These differences are clearly shown in the findings of applied research. Cf. Chew (1997), Hopt and Wymeersch (1997), La Porta et al. (1999).*

⁴ *However, according to Pistor et al. (2001), this explanation does not survive careful historical analysis.*

Keeping these questions in mind, we will distinguish three perspectives of corporate governance. Firstly, the shareholders value paradigm, which sees the participants to the firm activity as antagonists and their goals as conflicting. Consequently, the corporate governance problem can be properly solved – in the sense of maximizing the value of the firm and the income and wealth of its owners - only if one party controls the firm. Since the firm operation depends on the supply of capital, this party must be the shareholder, supplier of capital.

Second, the supporters of the stakeholders interest's point of view, who have a more complex, yet less linear and possibly less rigorous, but certainly more realistic conception of the corporate governance problem. They maintain that the performance of the firm depends on the participation of all parties involved in its activity. Giving all the power to one of the parties decreases incentives for the other parties. Overall performance may suffer consequently.

The two stances start from radically different views of the firm. They also have different economic systems in mind and a different conception of the corporate governance problem. They also originate different choices. However, both theories agree on the core of the corporate governance issue: the existence of residual returns that cannot be attributed to the productivity of any individual factor and the need to govern their allocation. Corporate governance, then, is concerned with the allocation of these residual returns, although the theories differ remarkably as to whom the property rights over such stream of income should be allocated. This difference descends from the different view of the production process upon which the two theories are based, and in particular the role of different parties within the firm and how each party affects corporate performance.

Both theories disregard the question of how these residuals are generated through the development and utilization of resources and of who contributes these resources. This question is at the centre of the third view of corporate governance. Although this is definitely a minority view and is still largely undeveloped, it deals with the fundamental problem of innovation: corporate governance is a fundamental device to stimulate and support the innovation process within the firm (the “innovative firm”). It does so by generating three conditions: financial commitment, organizational integration, and insider control. In combination, these conditions support organizational control, in contrast to market control, over the two critical inputs to the innovation process: knowledge and money

The next three sections present the basic features of the three major perspectives on corporate governance: the standard shareholder value (section 2), the stakeholder interest (section 3) and the innovative firm (section 4). Some comparative considerations on the three paradigms conclude (section 5).

The shareholders value paradigm

This paradigm is characterized by a narrow and static stance of corporate governance. It is narrow because it considers only two players in the firm: owners and managers. It is static because it only deals with finding the relation among the two players that is the most proper to pursue the efficient allocation of resources. Corporate governance includes the set of conditions that shape the ex post bargaining over the quasi-rents generated by a firm with incomplete contracts (Grossman and Hart, 1998). The problem is primarily rooted in the separation of ownership and control in a firm considered as a nexus of incomplete contracts and concerns incentives to the suppliers of equity capital. The crucial reason for this particular concern with this type of investors is that capital is more specific (or more liquid) and therefore more difficult to control. More precisely, shareholders' returns are regarded as incentives for risk-bearing and waiting (instead of consuming).

As equity investors, they are the only economic actors who make investments in the corporation without any contractual guarantee of a specific return.⁵ Therefore, they have an interest in allocating corporate resources to their best alternative uses to make the residual as large as possible and minimize risk (Fama and Jensen, 1983). The mobility of their investment requires that corporate governance guarantees the maximization of shareholder value. This will result in superior economic performance for all the participants in the firm and also for the economy as a whole.

The separation of residual risk-bearing from management permits optimal risk allocation in the firm. This separation and specialization of decision management and residual risk bearing forms the agency problem and concerns the divergent incentives and interest of decision agents and residual claimants. This situation originates agency costs, which include the costs resulting from managerial discretion to act other than in the best interest of their principals, and the costs of monitoring and disciplining managers to prevent the exercise of that discretion.

⁵ *Oliver Williamson (1985) accepts this idea that corporate governance should be used to guarantee equity investors, since they miss alternative mechanisms to protect their investment – as other stakeholders do.*

The paradigm of shareholders' value is both historically and empirically questionable (Lazonick and O'Sullivan, 1997a, 1997b). Rather, these shareholders invested their money in the securities issued by enterprises that were successful thanks to investments in productive assets that had already been made. In the US, for example, this is reflected in the fact that the market for industrial securities only came into existence at the turn of the last century, owing to decisions to 'go public' made by a number of owner-controlled companies that had grown to commanding positions within their respective industries since the 1860s (Chandler, 1977; Lazonic and O'Sullivan, 1997a). Once a firm was soundly established and generated a steady stream of revenues, earnings and depreciation allowances became the most important sources of finance. The main role of the liquid stock market, then, has been to enable original owners of successful firms to exit (partially) their firms, while continuing to control resource allocation. Empirical evidence also calls into question the risk-bearing justification for shareholder returns. The presence of limited liability and the reality of incomplete contracts for all suppliers of inputs to the corporate enterprise render questionable the assumption that shareholders bear all the residual risk.

In agency relations, the competitive market process is characterized by numerous contingencies that cannot be specified *ex ante*. This originates *ex ante* incompleteness and indeterminacy of relations among owners and managers. The ultimate outcome is general uncertainty that would prevent the existence of the firm. In particular, discretion would advantage managers, who do not contribute capital to the firm. To avoid this danger, the solution is twofold: a) the allocation of property rights and power, and b) the stipulation of (incomplete) contracts based on those property rights.

This solution is complemented by: a) the use of compensation contracts to create managerial incentives to act in shareholders' interests, a solution that leads to less than optimal risk-sharing (Murphy, 1985; Baker *et al.*, 1988; Jensen and Murphy, 1990; Hart, 1995); b) other mechanisms for governing corporations, including boards of directors, proxy fights, large shareholders, hostile takeovers, and corporate financial structures (Jensen and Ruback, 1983; Jensen, 1986; Scharfstein, 1988; Jensen, 1988; Grossman and Hart, 1988; Morck *et al.*, 1989).

The efficient allocation of property rights is based on the fact that in a public company owners (shareholders) are dispersed. Under these circumstances, rational shareholders abstain from firm-specific investment, giving up any

possibility to control directly the use of their investment. If managers free ride on resources and exploit shareholders, the latter's only option is to exit, but this would mean a loss in their capital value.

In a firm, managers invest their knowledge and ability to run the firm and take decisions, but they do not implement any investment of capital. Therefore, their investment is largely firm-specific. If managers would perceive that their firm-specific investment could be jeopardized in some way (e.g. shareholders would dismiss them before they recovered the value of that investment) they would abstain from investing. Therefore, a rational solution is that managers run the firm, since this is the best guarantee in public firms that they will not be expropriated of their firm-specific investment.

With incomplete contracts, managers keep discretion, which is a powerful incentive to accumulate further firm-specific investment. Following this investment, managers have a substantial informational advantage granting them effectively some residual rights of control. The solution can be found by stipulating incomplete contracts based on a proper allocation of residual property rights. These would allocate shareholders rights over the flow of income deriving from unspecified contingencies. In this way they would be compensated for running a risk without the protection of complete contracts.

Therefore, the firm is considered to be a nexus of incomplete contracts based on well specified and enforceable property rights. Managers are strong because of their firm-specific investments and the advantages that these originate in terms of residual discretion. Weak owners diversify and shift their investments among different firms according to their short-run advantage. Exit or the threat of exit is their weapon. *Ex ante* contracting among shareholders and managers concerns not the unknown features of unspecified contingencies, but the allocation of property rights in unspecified contingencies, thus keeping low the costs of contracting.

Discretion in incomplete contracting makes the allocation of residual rights of control in unspecified contingencies important but insufficient. In fact, it leaves untouched two specific problems associated with the execution of shareholder control: a) free-rider problems due to dispersion of ownership, and b) lack of managerial initiative due to direct shareholder control. Dispersed shareholders have no interest in undertaking the action that is needed to control managers.

Direct shareholder control avoids the free rider problem, but may discourage initiatives on the part of managers or may address that initiative towards actions

that do not maximize the value of the firm (or that even may decrease it). In fact, being dispersed and mobile, shareholders have no interest in supporting actions that would produce an outcome in the long run and whose opportunity cost would be high. Important growth opportunities are then lost for the firm and the economy.

However, the market provides, with some external help, efficacious solutions to these problems. We can distinguish one main solution, supplemented by two additional ones. In the first solution, shareholders exercise effective control through a) the market for corporate control when ownership is dispersed, or b) the shareholders' influence via the board of directors, when ownership is concentrated.

The market for corporate control is based on the exit option of dispersed shareholders, the perfect transparency of this market, share prices reflecting perfectly the value of the firm and including all relevant information, which is public and symmetrical. When shareholders perceive that the firm is run less than properly, they anticipate the fall of the share prices: to avoid capital losses, they exit the firm, thus depressing further the share prices.

Exit opens opportunities to raiders and disciplines managers. Since managers know that raiders, in order to restructure the firm and recover their investment, dismiss weak managers, will do their best to avoid this perspective by pursuing shareholders' value. This strategy also keeps the value of individual managers high on the market and determines their value (the equilibrium remuneration). Reputational effects strengthen this outcome (A. Gomes, 2000).

The paradigm of shareholders value, then, needs a somewhat spurious solution (the raider) to work properly. There are problems, though, that make this solution less than perfect in real life and that question the private and social value of choices descending from this paradigm. Among the well known problems of this paradigm are manipulation of dispersed shareholders, herding effect, information distortion, and short-terminism. In recent times, the public discovery of the accountancy practices followed by many large US companies (such as ENRON and WorldCom) to the advantage of managers proved these dangers beyond doubt.

The shareholders' influence via the board of directors, the second variant, requires a certain concentration of ownership to avoid the well-known Olsonian problems of collective action. In fact, large shareholders – having invested an important amount of their resources in one particular firm – have an interest and an economic advantage in investing in control. Control requires such

specific investment as investment in firm-specific information and in the knowledge necessary to run the board of directors. The cost of this investment is recovered only if the investor is able to influence firm decisions in his interest.

Although they solve some of the critical problems deriving from dispersed ownership, large shareholders cause other problems. They may face conflicts of interest that undermine their incentives. For instance, they may have an incentive to pursue private benefits of control that distort their decision-making. Institutional investors may themselves be part of organizations that face governance problems, being owned by dispersed shareholders. These problems stress the existence of trade-offs in corporate governance (A.W. Boot and J.R. Macey, 1998).

As said above, there are two additional solutions to the problems caused by dispersed ownership. One includes the obligations that corporate law imposes on directors and managers (e.g. fiduciary duty of managers and directors vis-à-vis shareholders). The other solution includes business ethics, commitment, and consensus. These principles may take the form of spontaneously (educationally or socially) internalized codes of conduct of managers and directors. However, these principles may also assume a market value through reputation effects and the decrease of internal social conflicts that they may originate.

It is hard to say whether these additional principles may be sufficient solutions to the problems caused by dispersed ownership. More likely, they are complementary to the solutions discussed in the first group. However, a critical role is played by the environment and by the economic system where corporate governance is embedded. For instance, an economy in which productive social capital is particularly important is an economy in which corporate governance may largely rely on consensus and commitment, because these principles are sanctioned by powerful social incentives.

In spite of its strength, the shareholders value paradigm does not explain the origin of the firm and even less its evolution. It disregards the external and internal consequences of the firm adaptation to the changing environment and the change this originates in the capabilities and competence that individuals contribute to the firm. Such changes are both quantitative and qualitative and both absolute and relative. Indeed, this paradigm says nothing on production and innovation, nor does it consider the contribution of other parties in the firm activity. Neither does it give proper and clear evidence to the fact that it requires particular individual features and institutions to work properly. When

such features and institutions do not exist, this solution is economically inefficient. The latter point is at the center of the next paradigm.

The stakeholders interest perspective

Since incomplete or missing contracts produce residual rights of control, individuals and organizations should continuously negotiate rights and duties. Power affects the outcome in these negotiations via incentives and decision-making.

Power refers to an individual's control over valuable resources in the firm over and above that determined through explicit contracts in a competitive market. If agents could write all possible state-contingent contracts at no cost and ensure that these contracts are not renegotiated, then the allocation of power would not matter. In practice this is not possible for problems of information, ignorance, imperfections, or due to the effect of exogenous factors. Corporate governance is about the allocation of power in firms and the effect this has on decision-making and incentives. Rajan and Zingales (2000) analyze the consequences this has on investment in human capital.

In particular, power depends on how valuable are, in the firm, the resources that individuals bring, i.e. how unique and how costly it is to replace them. The law as a source of power has particular importance, since it gives control rights in contingencies that are not covered through contracts. Ownership is an important product of law and grants the right to own physical and intangible assets. As a consequence, it allows the owner to contract as he prefers and specifies how the asset is used in situations not covered by contracts.

Three reasons account for the importance of the allocation of power in the firm (Rajan and Zingales, 2000):

1. The greater the power, the greater the amount of surplus the agent gets. This affects incentives and decisions in two ways: a) through an average effect: the agent enters a relationship when he is confident that he will get a substantial share of the residual surplus; and b) through a marginal effect: if power increases with the agent's specialized investment or effort, the appropriate allocation of power increases the incentive to invest in firm-specific assets. This enhances the organization's efficiency.
2. The allocation of power affects the feasible set of punishments that are imposed on non-owner agents who do not behave in a way that enhances firm

value. This originates incentives to good behaviour and to investment (to acquire power).

3. Power is necessary to prevent inefficient contests for power and misuse of power.

This analysis implies that, since power depends on how valuable are the resources that individuals bring in the firm, power relations should change with the change in the relative value of different resources. If, for instance, extensive and intensive investment in human capital by (a group of) employees becomes fundamental for the firm performance, power relations in the firm should change to the advantage of that group of employees. Corporate governance should change as a consequence. This introduces two different challenges to the shareholder value paradigm by: the stakeholder interest paradigm and the innovative enterprise paradigm. We will deal with the former issue in this section and with the latter in the next section.

The stakeholders' interest perspective is certainly formally less powerful and less precise than the shareholder value paradigm, although it is less simplistic and more problematic. In this paradigm, both the concept of the firm and that of corporate governance are broader and more complex and consequently less precisely defined. The outcome is in better correspondence with reality, possibly at the price of weaker operability.

According to the stakeholders' perspective, the firm is a coalition of different actors with different roles and capabilities. These are any party in the firm or of the firm (such as employees, suppliers, subcontractors, customers, local societies and governments, the environment) who has a particular interest in the firm and its activity and whose effort, investment, loyalty are crucial for the firm survival and development. In view of this, they have to implement some kind of firm specific investment, from whom they expect some kind of return.

In the stakeholders' perspective, corporate governance relates to the internal organization and power structure of the firm, its relation to external stakeholders, including the functioning of the board of directors, the ownership structure of the firm, and the interrelationships among management board, shareholders, and other stakeholders. As Tirole (2001, p. 4) puts it: "I will, perhaps unconventionally for an economist, define corporate governance as the design of institutions that induce or force managers to internalize the welfare of stakeholders."

This concept of corporate governance, then, is – or should be – primarily concerned with the incentives of all suppliers of necessary functions to the firm and how incentives affect economic performance. As a consequence, the choice of residual claimants regards the claimants' incentives and ability to choose the specificity of their contribution to the firm. At the same time, the incentive effect for a variety of stakeholders should not trade off the control over managers. Indeed, by broadening the number of stakeholders three dangers appear compared to the shareholder value paradigm (Tirole, 2001): a) residual income has to be divided among a great number of claimants: this may weaken incentives; b) managerial incentives become less focused and less sharp; and c) control may be divided and softened, thus encouraging foot-dragging and deadlock in decision-making.

Much of the stakeholder paradigm is centered on employees and their investment in firm-specific human capital; it is based on human capital theory and particularly to Gary Baker's theory of investment in on-the-job training. In fact, the physical and financial assets in which shareholders invest are not the only assets that create value in the firm. Human assets create value as well, in particular in economies in which the role of knowledge is rapidly growing and the production process is increasingly dematerialized. Under these circumstances, corporate governance should provide incentives to stakeholders to contribute as much and as well as they can to the performance of the firm and provide them with the guarantees necessary to induce them to invest in firm specific human capital and assets. Since individuals invest in human capital and to some extent their skills are specific to the firm for which they work, they afford costs (either directly or in the form of opportunity costs) and bear some of the risk associated with the enterprise. Because employees with firm-specific skills have a stake that is at risk in the firm, they should be given residual claimant status alongside shareholders (Blair, 1995, p. 238).

However important this recognition is, the features of a corporate governance process that allocates returns to firm-specific human assets are far from clear. The question of how to identify and properly rework individual investment and effort is still unsolved. No stakeholders' interest theory of the process that generates higher quality and/or lower cost products exists yet. In particular, it is unclear under what conditions (technological, organizational and competitive) investment in firm-specific assets can generate higher residuals and originate such increased returns.

Various economists of innovation have argued that firm-specificity is an outcome of organizational learning processes through which resources are

developed and utilized in the economy (see, for example, Best, 1990; Lazonik, 1991; Penrose, 1995). Yet, the process of innovation is inherently dynamic: as learning within and outside the enterprise develops, the organizational requirements of innovative investment strategies evolve over time, as much as the firm-specific skills that result from continued innovation do. Consequently, firm-specific skills that at one time enhanced economic performance may fail to do so in another time. The mere defense of any such investment may jeopardize the position of the firm in the competitive market, and risk becoming a *de facto* theory of corporate welfare. In fact, such defense is likely to encourage the entrenchment of the claims of economic actors, even when their skills are no longer sufficient to generate the returns to meet these claims (O'Sullivan, 2000).

Although this criticism has much substance, it is based on a rather restrictive conception of cognitive processes and supposes that an organizational learning process that was successful once is bound to lose its meaning and value once that particular innovation becomes outdated. Although the danger of encouraging the entrenchment of the claims of economic actors is real, one has to admit that actors that invested in organizational learning process do not learn only one particular innovation. They also learn how to innovate, since they acquire a method (a procedure) to develop new innovations. It is incentives to this particular type of cognitive processes (innovative cognitive processes) that is particularly apt to create wealth in the firm.

Therefore, the question is not only whether and how to remunerate generic investment in firm-specific assets on a residual basis. What has to be given the proper return is investment in the innovation process, that is, investment in those particular firm-specific assets that support continuous innovation. This is the topic of the next section.

The innovative firm

Both the shareholder and the stakeholder theories of corporate governance focus on the governance structures that facilitate the optimal utilization of existing productive resources. They neglect the governance of the process through which resources are increased, transformed and utilized in the economy. To the extent that resource allocation is reversible, individual and optimal – as neoclassical economics maintains – the optimal system of corporate governance is one that generates the institutional conditions that support the free flow of economic resources from one use to another. Although the stakeholder interest argument departs from the neoclassical assumption of

reversibility of resources allocation and consequently (considering complementarities and externalities of firm specific investment of different actors within the same firm) from the assumption that resource allocation is individual and optimal, even this paradigm is unable to explain the dynamic nature of the firm and its activity.

However, the large body of research on the innovation process has shown that innovation is necessary in a competitive economy and that innovation has important implications for corporate governance. Consequently, the conditions that support the process of innovation and change should be in the focus of the analysis of the features of corporate governance, in particular in highly competitive and dynamic contexts in which exit and entry processes (creation and destruction) are continuous.

Although this approach has been unable so far to produce an operational theory of corporate governance that includes innovation, it has suggested some important features that corporate governance should have and has clearly presented the reasons why it is important to devise such innovative corporate governance. The process through which resources are developed and utilized is central to the process through which successful enterprises and economies improve their performance over time, both interacting with one another. To deal with the economics of innovation, a theory of corporate governance must come to terms with the developmental, organizational and strategic dimensions of innovative resource allocation (M. O'Sullivan, 2000).

The developmental dimension of innovative resource allocation is concerned with resources commitment to irreversible investments with uncertain returns. There are two types of uncertainties: productive uncertainty and competitive uncertainty. The former originates, firstly, from the need for firms undertaking innovative strategies to develop the productive capabilities of the resources in which they have invested before these resources can generate returns and secondly, from the risk of failure of the required learning process. Competitive uncertainty derives from the potentially superior strategy of a successful competitor who pursues an alternative approach to innovation. In this case a firm may not gain competitive advantages and generate returns even when it is successful in generating a product of higher quality and /or lower cost than the one it had previously been able to produce. This outcome may be sign not so much of weak innovative strategy, but of the need to commit even more resources to the innovative learning process. This situation is made more complex by the fact that the future state of the world cannot be defined until it is discovered through the process of innovation (Rosenberg, 1994).

In the organizational dimension of innovative resource allocation, returns are generated through the integration of and interaction between human and physical resources. This makes the relationship between innovative investments and returns ambiguous. First, it is not possible to link individual contributions closely to a joint outcome because of the collective nature of the innovation process (Alchian and Demsetz, 1972; Teece *et al.*, 1997). This is inter-personal ambiguity. Second, there is inter-temporal ambiguity in the relationship between investments and returns over time that descends from the cumulative dimension of the innovation process (M. O'Sullivan, 2000). The organizational dimension of the learning that generates innovation lies in the fact that the organization of work shapes the opportunities for the transmission and transformation of knowledge in the process of collective learning. Collective learning is based on the complementarities of individual processes of learning. In fact, in the collective process learning by individuals is affected by the concomitant learning of others. Since individual learning in collective processes is specialized and specific-specific, it is necessarily integrated as new, collective, knowledge. When this process is successful, the firm develops integrated structures of abilities and incentives for their participants that are unique to that firm and cannot be replicated through the market co-ordination of economic activity.

In the strategic dimension resources are allocated to overcome market and technological conditions that other firms take as given. They are, then, creative responses to existing conditions in a Schumpeterian sense of the term:

“Thus, innovative strategy is, in its essence, interpretative and therefore subjective, rather than ‘rational’ and objective. ... It depends on a process of decision-making that occurs as the uncertainty inherent in the innovation process unfolds over time. It is, as a consequence, experiential as well as interpretative. The basis for strategic decision-making shifts as learning occurs through the process of innovating.” (M. O'Sullivan, 2000, pp. 409-410)

Consequently, decision-makers must have firm control of resources in order to commit them to a developmental process and must keep that commitment until the learning process has generated the conditions for reaping higher returns. This implies that a system of corporate governance supporting innovation must generate three conditions: financial commitment, organizational integration and insider control. These conditions provide, respectively, the institutional support for: (i) the commitment of resources to irreversible investments in innovation with uncertain returns and to the appropriation of product market revenues by

the innovative enterprise; (ii) the integration of human and physical resources into an organizational process to develop and utilize innovative technology and to commit individual skills and efforts to the pursuit of the goals of the firm rather than selling their human capital on the open market; and (iii) the vesting of strategic control within firms in the hands of those who have the incentives and the abilities to allocate resources to innovative investments. These conditions jointly support organizational control in contrast to market control over the critical inputs to the innovation process: knowledge and money.

This description of the strategic dimension of resource allocation, although important, is still too general. First, it simplifies the complex nature of innovation, which goes well beyond the simple production of higher quality and/or cheaper products and disregards the complexity of procedural processes. Procedures and procedural innovation can make an important difference. Second, the aggregation of the treatment presents a case of evil being in the particulars. Innovation processes, and hence the features of corporate governance, vary greatly according to the maturity of the industry and the conditions of technology (H. M. Dietl, 1998) and the features of industries in terms of visibility, novelty and appropriability of innovation (Tylecote and Conesa, 1999). These distinct aspects of innovation in separate industries put different requirements upon governance and the financial system. Consequently, financial commitment, organizational integration and insider control are likely to vary through industries and time.

Rajan and Zingales (2000) offer a narrower, although potentially operationally stronger explanation of why corporate governance should change in an innovative direction. They notice that the traditional (large) firm as depicted in Berle and Means' classical analysis is well defined by the ownership of assets and vertical integration. In this firm legal and economic boundaries coincide and do not change unless ownership changes. The main issue in corporate governance is how the surplus generated within these boundaries is to be allocated. Since this kind of firm requires more investment and more risk-taking than is within the capacity of the management, firms are owned by outsiders. The concentration of power at the top of the organizational pyramid and the separation between ownership and control originate the agency problem as the crucial problem of corporate governance.

However, the nature of the firm is changing, following technological and economic developments. These changes originate, among other things, increasing relative demand for skilled labour, greater mobility of factors, improvements in financial markets (following which capital is now relatively

more abundant and less specific), lowering costs of decision-making due to new technologies (in particular, information and communication costs).

The changing nature of the firm has important consequences. First, human capital has become more important relative to inanimate assets; physical assets have become less unique and employees have more outside options. Second, the importance of innovation and the firm's reputation in terms of quality also increased, both factors depending primarily on human capital. Third, all this originates the break-up of the vertically integrated firms and legal, economic and technical boundaries do not coincide.

The changing nature of the firm raises a number of new issues of governance and requires a new perspective in the analysis and implementation of corporate governance. In particular, corporate governance in the innovative enterprise must solve the problems concerning the support of, adaptation to, and protection of a) firm specific investment in human capital; and b) technical and organizational innovation.

In this perspective the support and protection to investment in human capital is particularly important. Since control rights over human capital are residual, i.e. not allocable through contract, they require links that cause the person or unit to be better off when voluntarily following the firm's commands rather than going their own way. This is possible only if co-operation within the firm produces complementarities and spillovers that create greater value for both parties. A way to internalize complementarities and spillovers is to reward employees that acquire firm-specific specialization. This can be done by giving specialized employees higher income and other privileges (e.g. life employment) or by giving key employees or units privileged access (power) to the enterprise or its critical resources.

Support and protection to investment in human capital has some important consequences on the nature of the firm. The mutual dependencies and specialization between the various units of the firm are what make it distinctive, and allow co-operation or power to govern transactions. The firm has less distinctive boundaries and these are defined by complementarities. The surplus is no longer concentrated at the top. This "democratization of rents" expands the job of governance beyond the control of managers. Consequently, the firm need not be commonly owned and ownership and control can be more closely associated. Maximizing shareholders' value, then, is not necessarily the right objective.

Conclusions

The three paradigms discussed above show some common features and various differences. Does this mean that they are mutually incompatible? To summarize, they differ in their conception of the nature of the firm and their view of the fundamental economic problem of the firm. However, they are similar in their explanation of the origin of the problem.

The three paradigms have sharply different conceptions of the nature of the firm. According to the shareholder value paradigm, the firm is a nexus of contracts among highly mobile and possibly dispersed suppliers of equity capital and other resources, in an economy with transparent competitive prices. In the stakeholders interest perspective the firm is a coalition among the suppliers of different indispensable functions, who are likely to be rather stable. For the innovative firm paradigm, the firm is an entrepreneurial coalition that must use resources to support the process of innovation. Clearly, the third paradigm is distinct from the former two paradigms since it is focused on the dynamics of the firm. However, one can support the view that without solving the problems stressed by the former two paradigms – supply with capital and incentives to stakeholders – there cannot be any sustainable innovation.

Other important differences lie in the view of the fundamental economic problem that firms must afford and solve. According to the shareholder value paradigm, the fundamental problem for the firm is the supply with (equity) capital. Concentrating residual income in the hands of shareholders give the latter the most powerful incentive. This is a simple objective, which has also the advantages of being compatible with sharp managerial incentives and with focusing control. For the supporters of the stakeholder interest paradigm, concentrating the residual income in the hands of shareholders would diminish incentives to other stakeholders in such a way as to probably overcompensate in a negative sense the effects of shareholder incentives. Modern firms are too complex to prosper with unilateral solutions; capital is relatively abundant, shareholders may be *de facto* protected in firms default, the stakeholders' active contribution and specific investment is too important a competitive factor in modern economies. The innovative firm paradigm focuses on the necessity to support and promote innovation. However, its supporters are less clear on who in the firm supplies the most important functions. Two are the main functions that the supporters of this paradigm have apparently in mind: innovative management (possibly including venture capital) and investors in highly skilled human capital. In this sense, the supporters of this latter paradigm are relatively

close to the stakeholder interest paradigm, although their analysis has the particularity of a decidedly dynamic flavour.

A general similarity among the three paradigms is that all accept – explicitly or implicitly – the idea that the origin of the governance problem is contract incompleteness. However, contract incompleteness has different implications for each paradigm. Contract incompleteness puts equity investors in the most difficult situation according to the shareholder value paradigm, since they have no alternative mechanisms to protect their investment. According to the stakeholder interest paradigm, contract incompleteness threatens most the stakeholders' firm-specific investment. Finally, for the supporters of the innovative firm paradigm particularly at risk is the appropriability of innovation.

Clearly, each paradigm stresses important problems of the governance of firms. The significance of these problems varies in space, from one economy to the other, and time. It also depends on the specialization of particular economies. Although the three paradigms are not easily compatible, they still may serve as useful devices to solve the governance problem, each one being relatively more useful in distinct circumstances. However, the analysis of these problems, let alone any conclusion on them, is far from being properly developed and solved.

Beyond these practical issues, there is one theoretically crucial question: what kind of choices do the different paradigms originate? Are these choices compatible or equally efficient? The supporters of the different paradigms clearly maintain that only one paradigm offers economically efficacious choices. Given the comparative results presented in this paper, one should be careful in accepting this simple conclusion. And in any case, before doing so, one should answer the following questions: a) are there particular environmental and institutional conditions under which each paradigm is comparably superior in the sense that it originates economically superior choices in the given circumstances? b) are there particular features of economic actors and contractual devices that make individual paradigms desirable and economically superior? c) since the firm is a complex entity, are there any particular technological circumstances where the relationship between incentive and control - that each particular paradigm originates over different components of the firm - make one particular paradigm better suited?

Answering these questions obviously requires a further step in the theoretical analysis: to include the nature and the particular features of the firm in the explanation and embed them in the broader economic and social context.

Waiting for a scientifically sound answer to these questions, the competition among the different paradigms can only be useful and support progress of research.

References

- Aglietta, M., 2000, 'Shareholder Value and Corporate Governance: Some tricky Questions', *Economy and Society*, Vol. 29, N° 1, February, pp 146-159.
- Alchian, A., and Demsetz, H., 1972, 'Production, Information Costs and Economic Organization', *American Economic Review*, Vol. 69, pp. 777-795.
- Baker, G., Jensen, M., and Murphy, K., 1988, 'Compensation and Incentives: Practice vs. Theory', *Journal of Finance*, Vol. 43, pp. 593-616.
- Berle, A., and Means, G., 1932, *The Modern Corporation and Private Property*, rev. ed., New York: Harcourt, Brace & World, 1967.
- Best, M., 1990, *The New Competition: Institutions of Industrial Restructuring*, Cambridge, MA: Harvard University Press.
- Blair, M., 1995, *Ownership and Control: Rethinking Corporate Governance for the Twenty-First Century*, Washington: Brookings Institution.
- Bolton, P., and Scharfstein, D. S., 1998, 'Corporate Finance, the Theory of the Firm, and Organizations', *Journal of Economic Perspectives*, Vol. 12, N° 4, Fall, pp. 95-114.
- Boot, Arnoud, W.A., and J. R. Macey, 1998, 'Objectivity, Control and Adaptability in Corporate Governance', in *Corporate Governance Today*, The Sloan Project on Corporate Governance at Columbia Law School, pp. 223-242.
- Chandler, A. D. Jr., 1977, *The Visible Hand: The Managerial Revolution in American Business*, Cambridge, MA: Harvard University Press
- Chew, D. H., 1997, *Studies in International Corporate Finance and Governance Systems. A Comparison of the U.S., Japan, and Europe*, Oxford: Oxford University Press.
- Dietl, H. M., 1998, *Capital Markets and Corporate Governance in Japan Germany and the United States. Organisational response to market inefficiencies*, Routledge, London.
- Fama, E., and Jensen, M., 1983, 'Separation of Ownership and Control', *Journal of Law and Economics*, Vol. 26, pp. 301-325.
- Gomes, A., 2000, 'Going Public without Governance: Managerial Reputation Effects', *The Journal of Finance*, Vol. 55, N° 2, pp. 615-646.

- Grossman, Sanford, and Oliver Hart, 1988, 'One Share, One Vote, and the Market for Corporate Control', *Journal of Financial Economics*, Vol. 20, pp. 175-202.
- Hart, O., 1995, 'Corporate Governance: Some Theory and Implications', *Economic Journal*, Vol. 105, pp. 678-698.
- Hopt, K. J., and Wymeersch, E., 1997, *Comparative Corporate Governance. Essays and Materials*, Berlin and New York: Walter de Gruyter, pp. 195-210 and in Donald H. Chew (ed.), *Studies in International Corporate Finance and Governance Systems. A Comparison of the U.S, Japan, and Europe*, Oxford, New York: Oxford University Press, pp. 251-258.
- Jensen, M., and Meckling, W., 1976, 'Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure', *Journal of Financial Economics*, Vol. 3, October
- Jensen, M., and Murphy, K., 1990, 'Performance Pay and Top Management Incentives', *Journal of Political Economy*, Vol. 98, N° 2, pp. 225-264.
- Jensen, M., and Ruback, R., 1983, 'The Market for Corporate Control: The Scientific Evidence', *Journal of Financial Economics*, Vol. 11, pp. 5-50
- Jensen, M., 1986, 'Agency Cost of free Cash Flow, Corporate Finance, and Takeovers', *American Economic Review*, Vol. 76, pp. 323-329.
- Jensen, M., 1988, 'Takeovers: Their Causes and Consequences', *Journal of Economic Perspectives*, Vol. 2, N° 1, pp. 21-48.
- La Porta, R. F., Lopez-de-Silanes, and Shleifer, A., 1999, 'Corporate Ownership Around the World', *The Journal of Finance*, Vol. 54, N° 2, pp. 471-517.
- Lazonik, W., 1991, *Business Organization and the Myth of the Market Economy*, New York: Cambridge University Press
- Lazonick, W., and O'Sullivan, M., 1997A, 'Finance and Industrial Development. Part I: The United States and the United Kingdom', *Financial History Review*, Vol. 4, pp. 7-29.
- Lazonick, W., and O'Sullivan, M., 1997B, 'Finance and Industrial Development: Evolution to Market Control. Part II: Japan and Germany', *Financial History Review*, Vol. 4, pp. 117-138.
- Morck, R., Shleifer, A., and Vishny, R., 1989, 'Alternative Mechanisms of Corporate Control', *American Economic Review*, Vol. 79, pp. 842-852.
- Murphy, K., 1985, 'Corporate Performance and Managerial Remuneration: An Empirical Analysis', *Journal of Accounting and Economics*, Vol. 7, pp. 11-42.
- O'Sullivan, M., 2000, 'The Innovative Enterprise and Corporate Governance', *Cambridge Journal of Economics*, Vol. 24, pp. 393-416.

- Pagano, U., and Rowthorn, R., 1997, 'Selezione di mercato e democrazia economica', in B. Jossa e U. Pagano (eds.), *Economie di mercato ed efficienza dei diritti di proprietà*, Giappichelli Editore, Torino, pp. 31-65.
- Penrose, E., 1995, *The Theory of the Growth of the Firm*, 3rd edition, Oxford and New York: Oxford University Press
- Pistor, K., Keinan, Y., Kleinheisterkam, J., and West, M., 2001, 'The Evolution of Corporate Law', *World Development Report 2002* Background Paper, Washington, D.C.: World Bank
- Rajan, Raghuram, G., and Luigi Zingales, 2000, 'The Governance of the New Enterprise', *NBER Working Paper Series*, Working Paper 7958, October
- Rosenberg, N., 1994, *Exploring the Black Box: Technology, Economics, and History*, Cambridge and New York: Cambridge University Press
- Scharfstein, D., 1988, 'The Disciplinary Role of Takeovers', *Review of Economic Studies*, Vol. 55, pp. 185-199.
- Shleifer, A., and Vishny, R. W., 1997, 'A Survey of Corporate Governance', *Journal of Finance*, Vol. 52, N° 2, June, pp. 737-783.
- Teece, D., Pisano, G., and Shuen, A., 1997, 'Dynamic Capabilities and Strategic Management', *Strategic Management Journal*, Vol. 18, N° 7, pp. 524-526.
- Tirole, J., 2001, 'Corporate Governance', *Econometrica*, Vo. 69, N° 1, pp. 1-35.
- Tylecote, A., and Conesa, E., 1999, 'Corporate Governance, Innovation Systems and Industrial Performance', *Industry and Innovation*, Vol. 6, N° 1, June, pp. 25-50.
- Williamson, O. E., 1985, *The Economic Institutions of Capitalism*, New York: Free Press.