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New Paradigms on Ownership of the Firm:

A comparative Analysis across Development Stages and Institutional and Technological Contexts

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This study has been prepared within the UNU/WIDER project on Property Rights Regimes, Microeconomic Incentives and Development, which is directed by Dr Laixiang Sun.

Laixiang Sun is affiliated with UNU/WIDER in Helsinki, and the International Institute for Applied Systems Analysis (IIASA) in Laxenburg, Austria.

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UNU World Institute for Development Economics Research (UNU/WIDER)
Katajanokanlaituri 6 B
00160 Helsinki, Finland

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ABSTRACT

This paper establishes a theoretical framework for the ongoing research project of UNU/WIDER on Property Rights Regimes, Microeconomic Incentives and Development. It identifies the major research interests, questions, and focuses. The theoretical emphasis is on the very relevance of concrete institutional context, development stages, and technological environment to the determination of ownership and governance structures of the firm, and on the rationality behind the emergence of unconventional ownership and governance structures of the firm in the industrial sector. Four types of examples are presented to show the characteristics of major emerging unconventional ownership forms, which include the rise of institutional ownership in large publicly traded corporations in the US and UK; the expansion of employee stock ownership in the US; the emergence of joint-stock co-operatives on a large scale in China; the famous Mondragon co-operative group in Spain and Italian co-operatives in the La Lega network.

Four cases are analysed to demonstrate how the changes in institutional and technological fundamentals alter the comparative cost-benefit balance of a given ownership form, which include the story of both bright and dark sides of Japanese 'companyism' and the shift in the balance between these two sides in the 1990s; the reasons why group affiliations and business diversification increase the total value of the relevant firms in India and Chile; the successful experience from Italy in imposing and sustaining a hard budget constraint to state-owned enterprises (SOEs) by supranational forces, and the evidence from China in hardening the budget constraints of local governments and local SOEs through the evolving fiscal decentralisation and monetary centralisation.

In terms of policy implication, four general lessons for developing and transition economies are highlighted.

I INTRODUCTION

There has been wide belief that the only efficient ownership structure in a market economy is one in which firms are owned by their private investors and that the existence of well-defined, personalized property rights is a basic precondition for the proper functioning of market economy. The perspective behind this belief is that the placement of property under the exclusive control of private owners enable them to be liable for the consequences of bad decisions, but entitled to the rewards of good ones and thus willing to offer greater motivation for both managers and workers.

However, in reality there has been a rich diversity in ownership structure even in the bastion of free market economy, the United States. As well-documented in Hansmann (1996), in the US, employee-owned firms have been widespread in the service professions including law, accounting, investment banking and medicine; and are spreading in the industrial sector. Farmer-owned producer co-operatives dominate the markets for basic agricultural products. Consumer-owned utilities supply electric power to ten per cent of the population. Occupant-owned co-operatives and condominiums are rapidly increasing their share in all multi-unit housing. Mutual companies owned by their policyholders sell half of all life insurance and a quarter of all property and liability insurance. Non-profit firms account for most non-government hospitals, colleges, schools and day-care centre. A large proportion of nursing home, health maintenance organizations and health insurance companies are non-profit. Museums and arts organizations are overwhelmingly non-profit.

These facts indicate that the conventional perspective on ownership issue is descriptively narrow. The claim that private investors should own the firm is not the logical consequence of free markets and free enterprise. According to Hansmann, precisely which patrons or participants in the enterprise constitute the most efficient owners depends on the particular context. Ownership rights need be assigned to the set of patrons who have the highest ratio of market-contracting costs to ownership costs due to cost-saving reason. Patrons include investors, employees, consumers, suppliers, policyholders, and in some cases, beneficiaries. Market-contracting is made costly by such factors as asymmetric information between the two sides of, or the presence of market power on one side of, the relationship, or by the potential for lock-in once investments have been made in a given relationship. Ownership is costly because it requires decision-making mechanisms to aggregate the preferences of separate owners and governance mechanisms to monitor the managers, and also because it imposes risks on the owners. Of these various costs, those of

collective decision-making may be of the greatest significance. In order to keep the costs of collective decision-making low, ownership is typically assigned to the set of patrons whose interests in the firm are the most homogenous. In the desirable equilibrium of the power game among the firm's owners, managers, and employees, owners and employees would be able to keep managers' opportunistic behaviour in check; owners and managers could be protected from employee extortion or shirking; and managers and employees could hold the opportunistic behaviour of owners in check and realize a reasonable return on their firm-specific investments (Holmstrom 1999; Miller and Falaschetti 1999).

In this research, we aim to examine new paradigms on ownership and governance structure of the firm in the industrial sector, i.e. in the stronghold of conventional, entrepreneurial firms and private shareholder-owned corporations. The emergence of unconventional ownership and governance structures of the firm in the industrial sector has been driven by a number of dynamic factors. To avoid an abstract discussion here, let us look at two groups of examples as follows.

The first group of examples shows the significant impact of information technology development on financial services industry and in turn on ownership and governance structures of the firm in the developed economies. Technological progress in information processing and communication has greatly enhanced the capacity of the financial services industry so that this industry now can handle vast information flows at very high speed and at very low cost. This progress makes it possible for individual (retail) investors to pool their investment via mutual funds and to have the same access to capital markets as that has enjoyed by wholesale investors who have billions at their disposal. In this direction, the notion of collectivist individualism becomes appealing. The impact of information technology progress on financial services industry is further enhanced by the important methodological break-throughs in the pricing of sophisticated financial instruments so that individual investors can much more efficiently manage their investment risks through financial markets. This new trend may significantly reduce the ratio of market-contracting costs to ownership costs with respect to the firm's individual investors. In other words, with the help of these new financial instruments, individual investors are now able to easily avoid the potential risk of lock-in to the business fortune of a specific firm, and thus become much less liable for the consequence of business failure in a specific firm. This development makes both employee ownership and institutional ownership more attractive than before.

In transition or developing economies, there typically is a lack of well functioning market institutions as those existing in the developed economies. While market-learning institutional evolution takes time and is not always smooth, economic actors in general and firms in particular need substitute institutions to facilitate transactions, supply strategic services, process and distribute information, preserve competition and resolve disputes. For a firm conducting businesses in a different institutional environment, the comparative cost structures of both market contracting and ownership across all types of patrons become different from those in developed market economies as well. Moreover, many transactions between the firm and the owners or holders of various institutional and social capitals can hardly be classified as simple market contracting or ownership (Sun *et al.* 1999, Chapter 2). As a result of searching for adaptive advantages, some hybrid modes of ownership and governance structures have been emerging and shown greater significance in certain transition or developing economies than in advanced capitalist economies. We will give more detailed discussion to this subject in the following sections.

The above discussion indicates that such factors as technological progress, institutional context and its change, competition framework and its change, and regulation set-up and its shift, all matter in shaping ownership structure of the firm. In this research, we explore and analyse the driving forces behind a number of emerging and unconventional ownership forms. We investigate their comparative cost-benefit balances from a dynamic and evolutionary perspective. We also seek the implications of new ownership forms emerging in the developed economies for the transition and developing economies. By doing these we try to illuminate the roles that alternative forms of ownership and governance can and should play in alternative institutional environments and in the future.

The rest of the report is organized as follows. Section 2 provides a general framework for understanding the dynamic interaction between efficient ownership arrangement and institutional context. In this section we highlight that given market conditions and institutional structures, the costs of market contracting and ownership can be reasonably specified and estimated. The differences or changes in these institutional contexts will bring differences and changes to the costs of market contracting and ownership, making alternative ownership arrangements workable under alternative institutional contexts.

In Section 3 we present a brief examination of four types of emerging, unconventional ownership and governance arrangements, which include institutional ownership, employee stock ownership, joint-stock co-operatives in China, and the Mondragon co-operative group in Spain and Italian co-operatives in the La Lega network. We investigate such issues as when shares of public companies are largely held by institutional investors, what this means to 'own'. In what kinds of conditions the increasing weights of employee ownership and institutional ownership in a corporation may induce a more desirable power balance among the major corporate players. Which mechanisms have been employed by individual co-operatives or co-operative alliances to mitigate the disadvantages inherent in the typical co-operative structure, without compromising too much the critical advantages of the co-operative establishment.

Section 4 gives four important examples to show how the same ownership structure responds to different market imperfections in different ways and produces different comparative cost-benefit balances. These four cases are the rise and fall of 'companyism' in Japan, the profitable group affiliations in India and Chile, the evidence from Italy to impose and sustain hard budget constraints to state-owned enterprises (SOEs) and the evidence from China to harden the budget constraints of local governments and local SOEs. Finally, Section 5 concludes the report and discusses policy implication of the research.

II INSTITUTIONAL CONTEXT AND EFFICIENT OWNERSHIP STRUCTURE: ANALYTIC FRAMEWORK

2.1 Comparative costs of market contracting and ownership

Thanks to the recent development of the ownership theory of the firm in developed market economies, it becomes widely accepted that the firm can be considered as a nexus of contracts (cf. Aoki *et al.* 1990; Hansmann 1996; Putterman and Kroszner 1996). Given market conditions and institutional structures, each of these contracts can be reasonably specified and the corresponding cost (or relative cost) can be estimated.

It helps to classify these contracts into two types: *market contracting* versus *ownership* (Hansmann 1996). Market contracting is more closely linked with the daily business operations of the firm. For example, the firm may have signed contracts with vendors of supplies or services that the firm uses as

inputs. It may have contracts with individuals who provide labour inputs to the firm. It may have signed loan agreements with banks, bondholders, and other suppliers of capital. The firm may also have sales contracts with purchasers of the firm's products. On the other hand, by means of ownership, an owner, or a group of owners, exercises the discretion and other residual control rights over the firm that are left after the exercise of the 'market contracting'.

The persons or parties linked with the firm by market contracting can check the firm's behaviour only by seeking enforcement of their contract with the firm or by threatening to cease contracting with the firm. Whereas the persons or parties holding ownership rights have the additional option of seeking to control the behaviour of the firm directly through internal governance mechanisms.

If the market is perfect and there is complete information, a firm may be fully specified by market contracting. In other words, in such an ideal market, the parties involving in setting up a firm could write well-elaborated, comprehensive, long-term contracts governing their relationship and specifying everything that matters economically. Thus there is nothing left to ownership. However, in reality the market is far from perfect and information problems are everywhere. These inconvenient realities make ideal and complete market contracting impossible and general market contracting costly. In order to minimize the total cost of transactions between the firm and all of the parties engaging in the transactions, the assignment of ownership becomes desirable. All other things being equal, transaction costs will be minimized if ownership is assigned to those persons or parties for whom the problems of market contracting, namely the costs of market imperfections, are most severe. Of course, ownership itself also involves costs, which mainly include the costs of monitoring managers, the costs of collective decision-making among the owners, and the costs of risk bearing. Moreover, the costs of ownership can vary greatly across the different parties involved in the transaction. Therefore, the least costly assignment of ownership would minimize the sum of the costs of market contracting and the costs of ownership (Hansmann 1996: 20-2; Putterman 1993).

Market imperfection often takes different forms and shows different extent across industries, regions, countries, and over time, because the formation and evolution of the formal and informal rules of the games in a society are a concrete political process, which takes time and is cultural and path dependent. These differences may make the costs of the same type of

transaction different as well under different contexts. For example, those worker co-operatives, which have operated in plywood manufacturing in the Pacific Northwest of the US, have had clear disadvantage in capital market in comparison with private enterprises in the same industry and same location. One major reason is that, credit institutions prefer to make loans to enterprises effectively controlled by a small number of people, whose behaviour can be monitored and directed easily, rather than to an enterprise whose ownership is diffused among the entire work force (Craig and Pencavel 1995; Gintis 1990). In sharply contrast to the situation in the US, worker co-operatives in China, or joint-stock co-operatives in Chinese terminology and with Chinese characters, have had much higher trust in local communities and credit institutions than private enterprises, even in the sense of pure economic accountability and creditability. As a consequence, they have enjoyed significant advantages in capital market over private enterprises (Sun *et al.* 1999, Chapters 2, 4 and 5; Zou and Sun 2000). This and other types of differences in comparative transaction costs may make co-operative firms scarce in the US but popular in transitional China.

2.2 Competition and ownership evolution

The close link between imitative output competition and the allocation efficiency of resources has been well established in the literature of neo-classical economics. In the central model of neo-classical economics, the perfect competition, each firm takes the prices given to it by the mysterious market clearing forces in the market, and competes with others by offering output, especially by offering output through entry. The market reaches equilibrium if neither insiders nor outsiders have an interest in changing the quantity they supply to the market. Given consumer preferences, technology and institutions, and full information for all rational actors, the perfectly competitive equilibrium obtained is Pareto optimum, meaning that resources are allocated in such a way that no-one can be better off without others becoming worse off. In this ideal economy, all market institutions are already there and functioning perfectly and therefore no market-creating activity is needed. Competition is nothing more or less than the undertaking of profitable imitative output responses to given market prices (Demsetz 1997: 137-8).

In terms of everyday meaning of the word, the notion of competition goes far beyond the narrow one of imitative output competition and has much broader implication than that of allocation efficiency. Competition is popularly viewed as rivalry behaviour and the leading driving force of the Schumpeterian creative destruction. Competition leads firms and, more

generally, organizations to be internally more efficient by sharpening incentives to avoid sloth and slack. Competition results in efficient organizations to prosper at the expense of inefficient ones and this selection process is good for aggregate efficiency. Competition induces innovations in all areas of technology, organization, and institutions, which has been the major source of gains in productive efficiency over time (Stigler, 1987; Vickers, 1995). Since the rivalry behaviour view of competition follows the tradition of Hayek and Schumpeter and pays main attention to productive and dynamic efficiency, it is more relevant to our study of the formation and evolving of the firm's ownership structure under different institutional contexts.

The significance of behavioural competition emphasized in the literature can be sketched out as follows. First, competition stimulates the monitoring efforts of owners and sharpens incentives for managers. An increase in the number of players in the market enhances the possibilities of performance comparison between different organizational structures and between managers. Competition in product markets alone may make profits more sensitive to the efficiency of the organizational forms and the effort of managers. This information not only makes the owners be able to relate managerial remuneration to profits so as to stimulate managerial effort, but also shows them the opportunity cost of different organizational structures. Competition by comparison also brings in reputation building efforts of the managers and reduces moral hazard because a manager's effort can be estimated with greater precision (Hay and Liu, 1997; Vickers, 1995). Second, competition can play a major role in selecting more efficient firms from less efficient ones. When firms' costs differ, the lowest cost firm will certainly win the competition and the highest cost firm may have to exit due to its losses or due to an increase in the number of competitors. In order to win the competition or survive in a competitive environment, firms have to develop themselves by capital accumulation, improving technology and management, and innovation (Liu and Li, 1998; Vickers, 1995). Third, dispersed imperfect information can be aggregated in the competitive process (Hayek, 1949: 96; Grossman, 1989; Vickers, 1995). Firms or other organizations can discover their desired information through the process of competition and comparison. For example, they can evaluate the opportunity costs of alternative choices of technologies, management modes, and organizational structures through performance comparison and learning from rivals.

While competition provides both incentive (carrot) and pressure (stick) to stimulate the efforts of economic agents and to promote innovation, we would

highlight that there is not a universal model of property rights regime and governance structure that can win the competition in all circumstances and in all time. Different models can co-exist side by side in the same circumstance, providing that each type of firm has its own enduring advantage but neither clearly dominates the others in overall efficiency. Organizational or institutional innovation can bring competitive advantages to the innovator just as technological innovation does the same.

A good example of the successful interaction between competition and the evolving of an alternative firm model is in large Japanese corporations. Most large companies in Japan are members of a small number of industrial groups, the *keiretsu*. About 70 per cent of shares of a member company are held by other group members and by the *keiretsu* main bank. Through this cross-holding process, the managers of Japanese corporations effectively hire friendly owners (Aoki 1994; Sheard 1994). As summarized in Gerlach (1992), the seemingly crisp categories of principal and agent become fuzzy in Japanese corporations as the managers of one firm become the owners of another, and in turn are held by managers of that firm. By this way, control has been largely merged into management rather than being separated. This system is characterized by Suzuki (1991) as a kind of collective defence to maintain the control by management over ownership.

This collective defence strategy is largely induced by the combination of fierce domestic competition and Japanese culture toward rivalries. From the manager's point of view, to be taken over by others is to surrender to their enemies. Competition is a war with no prisoners taken. The life-and-death battle leads Japanese managers to concentrate on 'Schumpeterian' competition rather than short-term profitability. The most important targets are those facilitating market domination, including foreign market penetration, quality control, and long-term product development. In contrast, 'share price increase' is the least important target for Japanese corporate managers. Typically, managers in Japanese large corporations spend more on corporate entertaining than they pay out in dividends (Best 1990; Aoki 1987).

The collective defence is also strengthened by the alliance between managers and employees. Large Japanese corporations typically build up long-term programmes such as housing, training, lifetime employment, and the seniority system. Managers and workers often trade wage increases for job security or better opportunities for promotion made possible by the growth of the firm. They even often endure hardship in order to enable their firm to survive and

grow (Aoki 1987; Banno 1997). The combination of fierce domestic competition and Japanese culture toward rivalries nurtures the emergence of Japanese 'companyism' (*kaishashugi*), which is characterized by harmonious management-labour relations, the absence of strong control by shareholders, and the importance of long-term relations in business (Banno 1997). Although some important aspects of companyism such as lifetime employment and the main bank system have started to fade in recent years and global competition has forced the Japanese system to conduct further reform, companyism had certainly helped the remarkable economic growth in Japan for several decades.

2.3 Market-taking versus market-making

There are two types of firms in an economy: market-taking firms and market-making firms. Market-taking firms take price signals and other market information as givens. They are guided by the 'invisible hands' of market as emphasized in the textbook of neo-classical economics. In contrast, market-making firms establish and operate markets by setting prices, carrying out transactions, forming and monitoring contracts, and producing and distributing information. Their 'visible hands' guide many markets. They are typically known as market intermediaries (Spulber 1996).

The simplest example of market-making firm is a retail or wholesale intermediary. This firm gathers demand and supply information, sets both bidding and asking prices for its commodities, and makes revenues from the mark-up between the two to cover costs of information gathering and price setting and to generate profits. In addition to price setting, the intermediary holds inventories of goods on hand and stands ready to sell to customers, and holds cash on hand and stands ready to buy from suppliers. This function avoids the costs of mismatch between buyers and sellers in terms of the double coincidence of wants, in which a buyer and a seller have to have both want and chance to transact with each other at the same time.

More generally, different types of market-making activities of market intermediaries are corresponding to different types of information imperfection in market places. As summarized in Spulber (1996), when there are random elements in demand or supply, intermediaries provide liquidity or 'immediacy' by standing ready to buy and sell. Given uncertainty about the willingness to pay or opportunity costs of trading partners, intermediaries co-ordinate transactions by matchmaking and brokering. When the

characteristics of buyers or sellers are unobservable, the intermediaries generate and supply market information and provide guaranties for product quality. When the actions of buyers or sellers are costly to observe or monitor, the intermediaries provide monitoring and contracting services. By these ways market intermediaries reduce or eliminate the uncertainty associated with making a satisfactory match between customers and suppliers. In addition, intermediaries add to the number of potential trading partners, which would increase the likelihood of encountering a trading partner and reduce search cost for all market participants. Consolidating transactions through intermediaries can generate returns to scale in producing and distributing market information (Che 2000; Spulber 1996).

An understanding of the functions of market intermediaries helps us to understand the way in which the market mechanism normally functions. For example, the existence of the equilibrium bid-ask spread, which separates buyer willingness to pay and supplier costs, is a consequence of transaction costs, asymmetric information between buyers and sellers and the returns to inter-mediating activities, rather than an evidence of market failure. While producing goods and services needs to consume resources, the establishment and operation of markets to allocate those goods and services are not free as well.

The establishment and evolution of a market driven by market intermediaries are path dependent and technology dependent. For example, the emergence of e-commerce has greatly enhanced the market-making activities of producers. It significantly lowers costs and increases speed in collecting data on demand, in expediting billings and invoicing, and in exchanging data on sales, inventory and marketing. E-commerce reduces economies of scale from vertical integration, and thus allows firms to eliminate the many layers of middlemen, which had been necessary in the past and represent inefficiency at present.[1] E-commerce makes cross-border purchases much easier, induces increasing tax competition across countries (particularly in European Union), and thus puts pressure on governments to reduce taxes.

[1] The most famous example of vertical integration may be Japanese vertical *keiretsu*, in which a series of suppliers and retailers is tied to a principal manufacturer, often through cross-shareholdings. This system worked very well for several decades. However, it is now seen widely as inefficient, expensive, and outdated distribution system (*The Economist*, 1 April 2000: 72).

2.4 Market institutions and adaptive efficiency

The establishment, operation and evolving of market are ruled by market institutions. Using North's (1990, 1997) definition, institutions are the 'rules of the game' in a society. They are the rules that society establishes for shaping human interaction. Institutions reduce the uncertainty involved in human interaction by giving us patterns for our behaviour. Because of the set of institutions we have, most daily interaction is the routine, so that the implicit importance of institutions is often ignored. In a static sense, institutions, together with the technology employed, define the costs of transacting and the options that organizations in the society face to capture the gains from specialization and division of labour. In a dynamic sense, institutions define the incentive structure under which organizations operate and determine the ability of organizations to evolve and to advance technology.

The institutional framework includes three components: formal rules, informal rules, and enforcement mechanisms. Formal rules are the written rules of society, which include political and judicial rules, economic rules, and contracts. Informal rules are the unwritten rules of society. They include conventions that evolve as solutions to co-ordination problems and that all parties are interested in having maintained, norms of behaviour that are recognized standards of conduct, and self-imposed codes of conduct. Informal rules allow people to go about the everyday process of making exchanges without the necessity to think out exactly at each point and in each instance the terms of exchange. The informal rules of a society can be so ingrained that people are not aware of them. Institutions often are ineffective if they are not enforced. For the enforcement of formal rules, an effective, impartial system of laws and courts is usually needed. In terms of the enforcement of informal rules, the 'correct' societal sanctions help to enforce norms of behaviour and strong normative personal standards of honesty and integrity help to undergird self-imposed standards of behaviour.

It is easy to claim that efficient markets are a consequence of institutions that provide the low-cost transactions and enforcement of contracts at a moment of time. However, the concrete institutions operating in a society are rooted in the societal structures and grow up through adaptive evolution. They cannot be directly replicated across different societies. Essential to an economy to be dynamically efficient is that institutions in the economy must be *adaptively efficient*. Adaptively efficient institutions are capable of providing economic and political flexibility for organizations and people to adopt to new

opportunities. They must provide incentives for the acquisition of knowledge and learning, induce innovation, and encourage risk-taking and creative activities. They also encourage trials and eliminate errors in a world of uncertainty, where no one knows the correct solution to the problems we confront. Similarly, essential to an organizational structure to be dynamically efficient is that it must be adaptively efficient too. It must be able and willing to find new and creative solutions in order to overcome shortages of resources and other social/economic bottlenecks. If one path does not work, it must be able and willing to initiate organizational responses to try new paths until successful outcomes are achieved.

The arguments in the previous paragraph are most relevant to transition and developing economies. The mature market institutions and organizational forms took roots and have developed themselves in developed economies for many generations. A brief list of such institutions includes: entry with low barriers and exit through well-established procedures of bankruptcy and liquidation; efficient financial and insurance institutions and organizations; anti-trust legislation and its sound implementation; rigorous accounting standards and their enforcement; well-developed financial press; overall enforcement of contracts; sustainable social security nets; and so on. However, for most economies at the beginning of the transition, there were no such market institutions and organizations at all. Instead there was a universal government which controlled almost everything in the economy. In most developing economies, although there have been a base for those institutions and organizations to evolve, the tasks to build up well-functioning market institutions are still very heavy and difficult to manage.

Market institutions and organizations cannot emerge from scratch. The direct transplantation of market institutions rarely succeeds. Institutional and organizational innovation is not an immediate replacement of the old structures by the new ones, but it is a market-learning process, a dynamic transformation process. New elements are usually emerging in combination with the rearrangements of existing institutional and organizational structures (Williamson 1991, 1995). The process typically goes beyond existing paradigms, evolves from sequences of progresses in know-how, economizing behaviour in adaptation to changes, technological innovation, and a multitude of cumulative and mutually reinforcing choices by numerous actors who have diverse interests and constantly evaluate alternatives and reconsider their previous views.

III FOUR TYPES OF UNCONVENTIONAL OWNERSHIP STRUCTURES

3.1 Institutional investors and institutional ownership

3.1.1 The rapid rise of institutional investors

Pension funds, mutual funds, insurance companies, foundations and university endowments—collectively known as 'institutional investors'—have become the dominant shareholders of corporations in the United States and other developed countries. By the end of 1997, institutional investors in the US held securities worth twice their country's GDP (about US$15.9 trillion). Of their security holdings, about 45 per cent ($7 trillion) were equity in large corporations (OECD 1999: 26, 34). It is estimated that institutional investors as a whole now hold about 50 per cent of all outstanding shares of US corporations, up from just 16 per cent in 1965 (Blair 1995: 45-6; *The Economist* 10 August 1996). In the United Kingdom, the situation is similar. By the end of 1996, institutional investors in the UK held financial assets worth twice their country's GDP ($2.2 trillion), of which over two-thirds were shareholdings in large corporations (OECD 1999: 26, 34). In the whole OECD area, institutional investors controlled over $26 trillion financial assets (about 110 per cent of GDP) by the end of 1996, of which about 35 per cent were shares in large corporations (OECD 1999: 20, 31).

The growth record of equity investment by institutional investors is most spectacular. Over the period of 1990-6, while the total financial assets controlled by institutional investors in the OECD area increased by an annual rate of 9 per cent on average, the value of their equity investment grew by 18 per cent on average. In the US, while the assets of institutional investors doubled during the period, the value of their equity investment almost quadrupled (OECD 1999: 9-10, 34).

The rapid rise of institutional investors has led to both exhilaration and anxiety among scholars, commentators, and decision-makers. The exhilaration is mainly stimulated by accelerating innovation and institutionalization in financial service industry and by the rise of professional fund managers in national and international financial markets. Whereas the anxiety is closely linked with the increasing disconnection between investors and corporate ownership, which is characterized by a three-way separation of ownership and control: direct shareholders (owners of shares), indirect shareholders (fund portfolio management), and executives (firm managers).

3.1.2 Exhilaration associated with financial market development and modernization

From the perspective of financial market development and modernization, the rapid rise of institutional investors is regarded as a natural consequence of socioeconomic development, technological progress and increasing competition. The increasingly wealthy and sophisticated individual investors need advanced financial instruments to reduce firm-specific risk through fund pooling and portfolio diversification, and at the same time to avoid a significant rising in agency cost they bear as owners of corporate equity. The rapidly ageing population in the OECD area have produced an increasing demand by private households for retirement benefits products offered by various financial institutions, including pension funds, insurance companies, investment funds, and banks.

On the supply side, deregulation of the banking and securities industries and the liberalization of the activities of institutional investors since the beginning of the 1980s have created a highly competitive and liberalized environment for the development of financial services industry. Spectacular technological advances in information and communication technology have brought in much more reliable and efficient clearing and settlements systems for securities and payments, and continuously created new financial instruments for risk management purposes. Professional fund managers have accumulated highly specialized knowledge and technical skills and played an increasingly active role in developing asset allocation strategies, taking investment decisions, and monitoring corporate managers (Blommestein 1998; *The Economist* 30 October 1999: 77-8, 6 November 1999: 107-8).

3.1.3 Anxiety in corporate ownership and governance

From the perspective of corporate ownership and governance, a great concern is what it means to 'own' when ownership is institutionalized. In comparison with the highly concentrated, highly personalized, hands-on ownership of the traditional proprietor capitalism, institutional investors look more like fiduciaries or trustees rather than 'natural owners'. For example, although pension funds in the US held $4.8 trillion by the end of 1996, the investment of over 80 per cent of those assets is delegated to external fiduciaries to manage, including investment advisers, investment companies, insurance companies and banks. Furthermore, dodging the difficulties of exercising traditional ownership rights, many institutional investors, especially the large public-sector pension funds, rely on an 'index' strategy to invest. They maintain broadly diversified portfolios that are selected to match an index of

companies in a given stock exchange, such as the Standard & Poor's 500 index. As a consequence, these institutional investors buy and sell only because a company is part of an index being tracked, not because of any knowledge about the company. For example, from 1986 to 1996, the amount of US mutual-fund money invested in the mostly widely held stock index funds increased a hundred-fold, to $65 billion, a growth rate of eighteen times that of the fund industry as a whole (Gates 1999: 36-8, 333; *The New York Times*, 28 January 1997: 1).

There are casual evidences of institutional shareholder activism. It is reported that institutional investors routinely put pressure on companies to curb 'excessive' compensation for executives, to make boards more independent, or even to sack poorly performing managers. According to *The Economist* (30 October 1999: 77), Rakesh Khurana of the Sloan School of Management at Massachusetts Institute of Technology has recently examined 1,300 occasions between 1980 and 1996 when chief executives of *Fortune* 500 firms left their jobs. In a third of cases, the boss was sacked. For a similar level of performance, a chief executive appointed after 1985 is three times as likely to be fired as one appointed before that date. The California Public Employees Retirement System (CalPERS), a pension funds of more than $80 billion, compiles and publishes an annual list of 'crummy companies', judged by their stock performance and management style, and sends its people in to interrogate their bosses and directors (*The Economist* 10 August 1996: 51).

In general, however, institutional investors are passive investors. Besides that existing regulations may prohibit some categories of institutional investors to acquire direct or dominant influence over the management of a company, institutional investors usually have no interest and capability to exercise traditional ownership rights in a direct, sustained and responsible fashion. The smaller insurance companies and pension funds typically give portfolio management mandates to outside fund management teams. The larger funds are constrained by many factors to exercise traditional ownership rights. The main constraint is the forbiddingly high cost of acquiring the desired firm-specific knowledge and information. For example, CalPERS invests in hundreds of companies. It is largely impossible for its trustees to sit on so many boards of directors, attend hundreds of shareholder meetings or evaluate thousands of quarterly financial statements in a meaningful and professional manner. The US nation-wide pension plan for teachers and researchers, TIAA-CREF, indexes two-thirds of its stock portfolio, directly managing only about one hundred stocks. Nevertheless, even one hundred companies are a

lot to monitor, apart from the problem linked with 'collective choice' dilemma—free riding (Blommestein 1998: 36; Gates 1999: 300).

3.1.4 Four channels to lessen the severity of the corporate governance problem

In this research we would argue that the difference between the traditional 'natural owner' and the new institutional owner has been largely exaggerated due to the popular illusion about traditional 'natural owner', and that there are alternatives to reduce the severity of the corporate control problem linked with institutional shareholders.

In a typical joint-stock company, what shareholders really own are their shares, not the corporation. When investors purchase initial public offerings of a corporation's shares, the assets put together available to the corporation become the firm's property. Shareholders may sell their shares while they feel dissatisfied with the performance of the firm, and in combination with other shareholders they may vote to sell the firm. What they cannot do individually is insist that the corporation buy back their shares. The inability of investors to force the firm to repurchase outstanding shares of its stock gives professional management greater control over equity capital. The corporation, not the shareholder, has title to firm's assets that have been secured from its initial sale of stock. If shareholders could reclaim these assets, the severity of the corporate governance problem would be greatly lessened. In other words, disappointed shareholders, acting individually but in large numbers, could demand payments that strip management of corporate assets (Demsetz, 1988: 114; 1997: 50-1). In this regard, there is little difference between natural and institutional owners, especially in the presence of a widely diffuse ownership structure.

For those companies with very diffuse shareholders, the rise of institutional shareholders would be able to lessen the severity of the corporate governance problem through following four channels. First, by pooling investment, institutional investors could be in a better position than individual investors to aggregate the ownership interest of individual investors into a controlling fraction of a corporation's stock. Second, institutional investors are in a better position than individual investors to undertake the functions of corporate governance due to their specialization in investment and corporation control in terms of both knowledge and time. Third, large institutions may have less incentive to unload shares because their unloading behaviour can cause share price to plummet, the financial equivalent of shooting themselves in the foot.

This position would make them more interested in monitoring the performance of those corporations, in which they have a controlling fraction of the total stock.

Fourth, as suggested in Demsetz (1997: 51-2), financial institutions such as open-end mutual stock funds have the potential for reducing the severity of the corporate governance problem. The open-end mutual stock fund pools capital from retail investors and uses its skill to invest in the shares of other corporations. The fund's business activity does not depend on the availability and continued deployment of specialized assets, as does the business of a manufacturing company. Capital placed at its disposal can be withdrawn by its investors without seriously compromising its commitments to others. General dissatisfaction with the management of a fund can cause investors to reclaim most of its capital, even though no single investor has invested a significant sum. This disciplining force serves as the most powerful mechanism for making the fund accountable. The fund can gather enough invested wealth to allow them to obtain controlling fraction of equity in some corporations and at the same time to maintain the ability to diversify. They can act somewhat as collectivist individualism.[2] This channel can play more significant role in transition economies and some developing economies, in which low levels of wealth and egalitarian distributions of wealth have been the norm.

In brief, though institutionalization in corporate ownership may not be able to create miracle in the field of corporate governance and it may bring in new dilemmas, compared with the individualized ownership in a company with widespread shareholding, it represents a historical progress in terms of creating new opportunities for improving corporate governance.

3.2 Employee stock ownership and the increasing desire for sharing ownership

Employees have become significant players in capital ownership worldwide, especially in the US.[3] Table 1 reports the current scale of three major employee ownership plans in the US. It shows that by the end of 1999, there were about 18,500 companies in the US that shared capital ownership broadly with employees. About 20 to 30 million employees owned about $1 trillion in

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2 *The Economist* 6 November 1999: 107.

3 Employee ownership in different transition economies possesses quite different features and will be discussed in the sub-Section 3.3 and Section 5.

stock through employee stock ownership plans (ESOPs), broad-based stock option plans, and stock purchase plans.

TABLE 1
NUMBER OF EMPLOYEE OWNERSHIP PLANS AND EMPLOYEE PARTICIPANTS, AND THE VALUE OF PLAN ASSETS (BY END OF 1999)[a]

Type of Plan	Number of plans	Number of participants[b]	Value of plan assets
ESOPs and stock bonus plans	11,500	8.5 million	> $400 billion
Broad-based stock option plans[c]	3,000	7-10 million	(several hundred billion)
Stock purchase plans	4,000	15.7 million	(not realistic to estimate)

Notes: [a] The 401(k) plan is treated as a fast-growing form of employee benefit plan and therefore is excluded in the table by NCEO, although the plan is largely invested in employer stock as well. It is estimated that the number of 401(k) plan was over 2000 and the plan covered 2 million participants by the end of 1999.

[b] Because many companies offer multiple plans and many employees participate in more than one plan, the sum of this column is certainly greater than the real total number of employee participants.

[c] Broad-based stock option plans are those that grant stock options to 50 per cent or more of full-time employees of the company.

Source: The National Center for Employee Ownership (NCEO, 2000a): 'A Statistical Profile of Employee Ownership', http://www.nceo.org/library/eo_stat.html.

While ESOPs experienced spectacular growth in the 1970s and 1980s following the tax benefits and regulatory guidelines made available in the 1970s, the broad-based stock option plans have obtained popularity only since the early 1990s. It is reported in *Forbes* that in 1997, about 30 per cent of the largest US companies have broad-based stock option plans covering more than half their employees, up from 17 per cent five years ago (Geer 1997: 158). Another 1997 survey of 1,100 publicly traded companies conducted by ShareData, Inc. and the American Electronics Association indicated that within companies with 500 to 1,999 employees, 51 per cent offered stock options to all employees and the corresponding percentage in 1994 is 30. Of companies with 2,000 to 4,999 employees, 43 per cent offered stock options to all, as compared to 10 per cent in 1994. Forty-five per cent of companies with 5,000 or more employees offered stock options to all, compared to 10 per cent in 1994 (NCEO, 2000b). While the sample selection may be biased in favour of stock option plans, the expansion rates revealed by the survey are extraordinary by any standard. A 1995 survey conducted by the Association for Quality and Participation found that 13 per cent of the Fortune 1000

companies offered stock options to 60 per cent or more of their employees (NCEO, 2000b).

Broad-based stock options are now the norm in high-technology companies and are rapidly gaining popularity in other industrial sectors as part of an overall equity compensation strategy. The significantly positive contributions of broad-based stock option plans to productivity growth and return on assets have been demonstrated in a very recent research (Kruse *et al.* 2000).

Of companies with more than 500 employees, more than 100 are majority employee-owned. The top 100 US companies that are over 50 per cent owned by employees (by May 2000) are presented in Table A-1 of the appendix. The table indicates that several dozens publicly traded companies have a majority of stock owned by their employees. It is also reported that about 125 listed companies have at least 20 per cent employee ownership (Gates 1999: 61). Companies with a majority employee-ownership include Arrow Electronics (9,000 employees), Amsted Industries (9,300), Science Applications International (35,000), United Airlines (81,000) and Publix Supermarkets (109,000) (see, Table A-1).

The rapid expansion of employee stock ownership is clearly contrary to the mainstream theoretical predictions, which suggest that employee ownership in general will lead to under-investment, inefficient decision-making, inadequate supervision, and thus poor performance.[4] The discrepancy between theoretical prediction and real development of employee stock ownership has stimulated a great number of empirical researches in the past three decades. As summarized in Kruse and Blasi's (1995) well-established literature survey, the empirical literature suggests that employee ownership is associated with either improved or unaffected employee attitudes and behaviour, and with better or unchanged performance. Almost no studies find worse employee attitudes or behaviour, or worse corporate performance under employee ownership.

In this research, we would like to add an extra perspective for justifying the existence and expansion of employee stock ownership in publicly traded companies, in parallel with the traditional perspectives of broadening the distribution of wealth, providing additional employee benefits, gaining tax advantages, improving firm performance, and defending potential take-over

[4] For the critical reviews over the mainstream theoretical predictions, see Bonin, Jones and Putterman 1993; Blair 1995: 298-303).

threats. As we have discussed in Section 1, with the help of information technology development in the financial services industry, individual investors now have convenient avenues to avoid the potential risk of lock-in to the business fortune of a specific firm. As a consequence, they would become much less liable for the consequence of business failure in a specific firm. Against this pretty new environment, we argue that the increasing weights of employee ownership and institutional ownership in a corporation may be a compensation for such a decreasing liability of diverse individual shareholders. This increase may make contribution to the restoration of the desirable power balance among the major corporate players, so that under the new equilibrium, owners and employees would be able to keep managers' moral hazard in check; owners and managers could be protected from employee extortion or shirking; and managers and employees could be assured that opportunistic behaviour of owners would not keep them from realizing a reasonable return on their firm-specific investments (Holmstrom 1999; Miller and Falaschetti 1999). Moreover, the attention will also be given to the assessment, as well as factors predicting the rapid adoption, of broad-based stock option plans.

3.3 Joint-stock co-operatives in China: the hybrid is more adaptable

In the 1990s, China's township and village enterprises (TVEs) have conducted radical ownership restructuring on a large scale.[5] The dominant new ownership form adopted in the process is 'joint-stock co-operative' (*gufen hezuozhi*). Other supplementary forms include selling, leasing, taking over, merging, and restructuring through Sino-foreign joint venture and corporatization. Joint-stock co-operatives (JSCs) are not only emerging in the TVE sector, but also in the state-owned enterprise (SOE) and private sectors.[6]

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[5] In this paper, TVEs refer to those rural enterprises with dominant community ownership, which include the traditional collective TVEs and those transforming themselves from collective ownership to the joint-stock co-operative (JSC) form. In a similar vein, those private and household firms which adopted the JSC form are still put in the category of the private sector; and those state-owned enterprises (SOEs) which adopted the JSC form are in the category of the SOE sector. By this categorization, we can relatively easily figure out the difference between those JSCs emerging in these three different sectors in the research.

[6] There is no official statistical data on the pace of adoption and distribution of new ownership forms across regions and years. However, some official surveys and research reports show us the scale and pace: By the end of 1996, of all TVEs, about 42 per cent in Shandong Province, 33 per cent in Jiangsu Province, 26 per cent in Zhejiang Province and 20 per cent in Guangdong Province had been transformed into JSCs (*Yearbook of China's*

While the performance of JSCs may widely differ across individual enterprises. Their average performance in the TVE sector has been outstanding. First, the adoption of JSCs meets the urgent need for TVE capitalisation very well. In those provinces such as Zhejiang, Jiangsu, and Anhui, which have been the leading areas for TVE development, this adoption leads to an intermediate reduction of the debt/asset ratio by 10 percentage points at average. Second and more importantly, it is frequently reported that those TVEs which have transformed themselves into JSCs have typically shown a significant improvement in performance, exhibited more dynamic features, and played a leading role in maintaining the TVE miracle (see, among others, *TVE yearbook 1997*: 299-306, *1998*: 271-80; Han and Zhang 1993; Wang *et al.* 1997).[7]

The property rights and institutional arrangements across JSCs are not uniform as well, with variations across regions, industries, and the SOE, TVE and private sectors. In China's official statistics, the various forms of JSCs have not yet been clearly brought together in a single category. However, the stylized features of JSCs in the TVE sector can be spelled out as follows:

(a) Managers and employees own a *majority* of the total share of the firm and share-holdings among them differ on the basis of paid subscriptions.
(b) The firm is closely held, implying that ownership shares are typically not freely marketable, although subscribed shares can be transferred within the community.
(c) The local government may hold a large part of shares in the name of community citizens. That is, city and county governments may be shareholders of the restructured SOEs, and township and village governments may hold shares in the restructured TVEs.

Township and Village Enterprises [*TVE Yearbook* hereafter] *1997*: 299). At the national level, about 33.5 per cent of TVEs had conducted various forms of ownership restructuring by the end of 1997; and 63.4 per cent of the restructured TVEs adopted the JSC form. Of small SOEs, about 50 per cent in Shandong, 60 per cent in Jiangsu, 40 per cent in Jilin and 30 per cent in Henan had been transformed into JSCs (Institute of Economic System Reform 1997; You and Wang 1997). The ownership restructuring process is led by the coastal provinces and TVEs are largely concentrated in these provinces as well.

[7] During 1992-7, the TVE sector continued its growth miracle. TVE value added increased from 299 billion yuan in 1992 to 1,004 billion yuan in 1997, implying a real growth rate of 22 per cent per annum. In 1998 and the first half of 1999, the growth rates of TVE value-added were still over 15 per cent although there being the negative impact of deflation and East Asian economic crisis. Since 1995, industrial TVEs have produced more than 30 per cent of the national totals of industrial value-added, profits, and output; the TVE sector as a whole has created more than 16 per cent of China's GDP (Sun 2000).

(d) In addition to the shares held by the insiders and local government, there usually exist some (or even large) shares of outside equity which carry one vote per share.
(e) A representative form of governance is usually employed based on 'one-person-one-vote' or 'one-share-one-vote' or a combination of both voting principles.
(f) The firm is small or medium-sized.

There are typically different types of shares. One of them, for example, may be similar to a trust fund for employee pensions, the fund is owned by employees as a whole and benefits from the fund are distributed mainly according to seniority. Shares that confer the greatest ownership rights are those that have been subscribed by employees as individuals, which we call the most *active shares*. However, because of the smallness of the firms, these most active shares are not freely marketable. This makes these individually subscribed shares be of more similarity to a venture capital investment with a simple profit sharing scheme than to the shares of western public companies. The profit sharing scheme is typically that: a fixed proportion of total profits (after taxes) is earmarked as the shareholding fund for the distribution of dividends.

The local government has continued to be involved in the governance of the restructured enterprises via its state or collective assets administration body and financial bureau instead of the original industrial bureaux. Its role in governance has been increasingly transformed from sole owner and supervisor of the firm to one more similar to that of a major venture capitalist. A typical venture capitalist often serves on the board of directors, provides help in recruiting and compensating key individuals, works with suppliers and customers, gets involved in establishing business strategies, and most importantly plays a major role in raising additional capital (see, e.g. Dasgupta and Tao 1998; Hellmann and Puri 1999). At present, however, the local government seems to play a stronger role than a pure venture capitalist even in situations where the only capital provided by the government is the land. This reality may be partly attributed to the need by all parties concerned for more time to live up to the letter and spirit of their newly defined roles. But more evidence suggests that this involvement is mutually beneficial during the transition when well-functioning market intermediaries and dispute-settling institutions are still in their infancy, and that it serves to promote a smooth institutional transition with lower social costs.

The fact that managers and employees hold a majority of the shares makes the JSC quite similar to those firms with employee ownership. The performance characteristics of employee-owned firms have been hotly debated and an enormous literature has developed as we have presented in the previous sub-section. For the co-operative type of employee ownership and closely held employee stock ownership in developed economies, the theoretical and empirical literature suggests that while these arrangements may bring both advantages and disadvantages for the performance of the firm, on balance in most circumstance the disadvantages seem outweigh the advantages (Bonin *et al.* 1993). The recent literature dealing with employee ownership in the former Soviet Union and Eastern Europe seems to further alter the balance toward the disadvantages (Earle and Estrin 1996).

The conclusions in the western literature indicates that the relative scarcity of worker co-operatives in the industrial sector lies in their disadvantages in collective decision-making and capital financing (Bonin *et al.* 1993; Craig and Pencavel 1995; Hansmann 1996). Contrary to the disadvantages faced by worker co-operatives in the west, JSCs in China have had much higher social trust and economic accountability in local communities and credit institutions than private enterprises. Consequently, they have enjoyed significant advantages in capital market over private enterprises (Sun *et al.* 1999; Zou and Sun 2000; Wang 1997). With the help of the hybrid mode of joint-stock co-operative, Chinese JSCs can use socioeconomic and institutional resources from more than one channel. They can develop innovative mechanisms that facilitate to avoid high costs of collective decision-making, to check insider control, to mobilize internal financial resources and to diversify risk.

The conclusions in the transition literature rely on the implicit assumption that the employee-owned firm has rents or other sources of firm-specific surpluses in one way or another due to the lack of fair competition and contract enforcement mechanism. This assumption is hardly applicable to the case of China's JSCs that have faced highly competitive product markets and increasingly competitive labour market, and have little political power to maintain some kind of firm-specific rents.

Because of these important differences, a better understanding of how China's JSCs actually work will bring new insights into not only the ongoing debate over the advantages and disadvantages of employee ownership, but also its evolving in the future. In this research, we will examine the general mechanisms that function in the JSCs in China. The major mechanisms we will examine include those that check insider control, that facilitate to avoid

high costs of collective decision-making, that serve to diversify financial and business risks and thus induce higher financial accountability, and that provide the desirable flexibility to evolve.

3.4 Mondragon group in Spain and Italian co-operatives in the La Lega network

Producer or worker co-operatives have existed in western market economies since the introduction of factory system. The attractiveness of worker co-operatives stands not only on such ethical concerns as democratic member control and the quality of life, but also on their potential economic advantages. However, worker co-operatives are rare in the industrial sector of western market economies.

As summarized in Craig and Pencavel (1995), there are four potential economic advantages for worker co-operatives to be more productive in comparison with conventional investor-owned corporate firms. First, a co-operative would be able to mitigate the agency costs associated with the separation of ownership from control in a corporation, because worker-owners are likely to be much better informed about the actions taken by managers than are outside owners. Second, worker ownership in the co-operative would avoid the interest conflicts between workers and owners and encourage voluntary co-operation among worker-owners. Third, workers in the co-operative may be able to monitor each other's effort more effectively than in firms where the monitor is the owner's agent. Fourth, when workers identify their efforts with co-operative outcomes, morale would be heightened, leading to more and better work. Moreover, an upward flow of information from the shop floor would facilitate the improvement or mini-innovation in production methods and lower turnovers would induce more accumulation of firm-specific human capital (Bonin *et al.* 1993; Smith 1994).

Why are there so few worker co-operatives in the industrial sector of western market economies? There are three primary explanations in the literature. The first is the high costs associated with collective decision-making. Usually, workers are far more likely than investors to differ among themselves concerning the firm's policies. In important decisions, there is often more room for judgement and discretion in a co-operative, because unlike the situation with investors, there are no simple objective criteria to follow, and workers often have different stakes in the firm's decisions about investment and relative wages (Hansmann 1996: 89-91). In addition, managers may lack necessary autonomy to make decisions in contingencies. The second is that

worker co-operatives have difficulty to compete with investor-owned firms for capital financing. The amount of capital that can be raised from workers is bound to be limited due to the wealth limitations of individual workers. External financiers with no direct control of the firm's governance will not commit significant funds unless they can receive a substantial premium to mitigate the risk of being 'held up'. The third reason is the disadvantage in risk diversification. Workers have tied to the fortune of the co-operative not only their labour incomes but also their capital (Binin *et al.* 1993; Craig and Pencavel 1995).

For individual worker co-operatives, if the above listed disadvantages can be offset by the advantages, they can survive and compete with other ownership forms side-by-side, as the case of plywood co-operatives in the Pacific Northwest of the US. For a group of worker co-operatives under a corporate alliance, they may be able to employ other mechanism to overcome a large part of these disadvantages but not at the expense of the major advantages. The Mondragon groups of co-operatives in the Basque region of Northern Spain and the Italian co-operatives associated with La Lega in general and in the Emilia-Romagna region in particular may be the most excellent examples in this regard.

Launched in 1956, the Mondragon Group has grown from a single, twenty-five member co-operative into a massive enterprise group with over 30,000 workers and annual sales of $5 billion in 1997. Nearly half of the sale is in exports. It also has a financial group with $6 billion in assets and over 250 branch banks around the Basque region (Gates 1999: 253). Mondragon Group has adopted a system approach to co-operative development. It has combined collective ownership with the incentives of individual ownership in a mixed system through establishing a system of individual internal accounts with automatic loan-back.[8] The system explicitly specifies both the individual and collective side of human motivation. While the principal of 'one-worker, one-vote' is institutionalized in the base-level co-operatives (with less than five hundred members), the Group has adopted many mechanisms from its rivals

[8] The system of individual internal accounts is based on each co-operative in the group. Seventy per cent of the surplus of the co-operative is put into this system and each member of the co-operative has such an internal account. Each individual account records the receipt of the portion of the surplus earmarked for it, and the corresponding fund is then automatically loaned back to the co-operative, with interest paid. Upon leaving, a member receives 75 per cent of the accumulated funds credited to his/her internal account, and the other 25 per cent is retained by the co-operative as the capitalization that makes the job possible. This system allows the co-operative to mobilize almost 100 per cent of its annual profits for capital financing (Benello 1996).

in the establishment of the Mondragon Co-operative Corporation (MCC). These hybrid mechanisms have made significant contribution to MMC's success in the rapidly changing and highly competitive global market (Cheney 2000; Benello 1996; Huet 1997; Whyte 1999).

The success of Italian co-operatives associated with *La Lega Nazionale delle Co-operative e Mutue* (The National League of Co-operatives and Mutual Aid Societies) highlights again the importance of co-operative alliance and network. La Lega develops a number of supporting mechanisms to promote the growth of the co-operative sector. Of these mechanisms, most significant ones include La Lega's financial institutions and its representative power and negotiating ability in the constant negotiations with the central and local governments (Ammirato 1996).

In this research, we investigate and highlight the innovative mechanisms that have been developed by Mondragon co-operative group and La Lega co-operative alliance to mitigate the disadvantages inherent in the typical co-operative structure but without compromising too much the critical advantages of the co-operative establishment. We assess their recent institutional responses to the increasing global competition. We also explore the implications of their institutional innovations for the ownership restructuring of enterprises in transition economies.

IV BEHAVIOUR OF THE SAME OWNERSHIP STRUCTURE UNDER DIFFERENT MARKET IMPERFECTIONS: FOUR EXAMPLES

4.1 The rise and fall of 'companyism' in Japan

In the subsection 'Competition and Ownership Evolution' of Section 2, we briefly discussed the emergence and basic features of Japanese 'companyism' (*kaishashugi*) in large Japanese companies. The companyism is characterized by harmonious management-labour relations, the absence of strong control by shareholders, and the importance of long-term relations in business. The Japanese corporate system is unconventional as has been widely recognized. The system operates on fairly different principles from those stylized in neo-classical economics. Instead of facing perfectly competitive markets for factors of production such as labour, capital and intermediate inputs, Japanese corporations run business through long-term relational contracting with various agents, including workers, investors, creditors, and suppliers. Agents

on both sides of various relationships reciprocate economic benefits on a long-term basis. The results of outside competition emerge in the form of a ranking among a fairly stable group of agents instead of on the basis of continual re-evaluation through perfect markets (Aoki 1994).

There has been much discussion on the bright side of companyism, i.e. on its superiority over Anglo-Saxon capitalism and on its contribution to Japan's postwar economic miracle. In contrast, there has been virtually no systematic, in-depth investigation into the dark side of the companyism, which may be also one of the major causes of the recent company failures and huge losses (Porter and Takeuchi 1999). For example, the lack of shareholder pressure and lifetime employment have led Japanese companies to put growth ahead of profitability. However, the growth-orientation may drive competitive convergence, unrelated diversification, and massive excess capacity.

The localized information-processing, horizontal co-ordination, inductive strategizing, and rank hierarchy based on seniority have driven the continuous and incremental operational improvement to the frontier of productivity. But while the rest of world has caught up and some leapfrogging ahead with the help of information technology, the relative weaknesses of the companyism become evident in activities outside of production, such as strategic planning and finance. Particularly, in those industries such as aerospace, chemistry, and software, where large scale planning across markets is advantageous or where non-repetitive co-ordination needs to be planned *ex ante*, the failure of the companyism has been in companion with the take-off of the Japanese economy (Aoki 1994, Porter and Takeuchi 1999).

On the one hand, the internal incentive mechanism characterized by the seniority rank hierarchy encourages the diligent study of competitors and imitative advancement. On the other hand, the mechanism penalizes mistakes but does not reward successes or initiatives for doing things differently. This certainly discourages innovation and entrepreneurship.

In the vertical *keiretsu*, suppliers and retails tend to be tied to manufacturers, through cross-shareholdings. This allows manufacturers to control prices by restricting distribution to their own wholesalers and retailers. While this system works well in the past to strengthen the strategic development of large manufacturers, it becomes increasingly archaic now. Information technology plus the deregulation in the 1990s have made many retailers become big and increasingly independent. They have the knowledge about their customers and alternative suppliers, and thus have the muscle to break the system apart. In

comparison with the emerging distribution system characterized by B2B e-commerce, the traditional *keiretsu* system becomes increasingly inefficient and expensive.

The ignorance of the dark side of the story has led to an incomplete understanding of Japanese corporate system. In this research, we would take a balance perception and investigate how the Japanese corporate system to respond to the new challenges introduced by globalization and information technology development. As suggested by Aoki (1994), The Japanese corporate system is supported by a 'closed' institutional framework. The system employs long-term relational contracting as the substitute for market imperfections. Many aspects of them may be essentially inconsistent with globalization and become outdated while the extent of market imperfections has been significantly reduced. A balanced understanding of this famous corporate system and its responses to the new environment would have significance for our understanding of the future of market economies as well as that of transition and developing economies.

4.2 Corporate diversification and group affiliation in developing economies

Diversified corporations or corporate groups have played a dominant role in most developed and emerging market economies. For example, Montgomery (1994) reports that the 500 largest US publicly held companies produced 75 per cent of the output of all US public companies in 1992. For each of the years 1985, 1989, and 1992, over two-thirds of these top 500 companies were active in at least five distinct lines of business (defined by 4-digit Standard Industrial Classification Codes). While business diversification is mainly conducted by independent companies in the developed economies, diversification via group affiliation is a prevalent feature of public corporations in East Asia, India, Chile, and other emerging markets (Claessens *et al.* 1999; Khanna and Palepu 1999, 2000).

There are various causes for corporate diversification. Some of the causes may lead to the increase of total value of the company, whereas the others may bring in the opposite result. On the theoretical ground, the value-creating causes include, *inter alia*, reducing financing costs (Lewellen 1971), reducing transaction costs (Williamson 1975; Stein, 1997), tax savings (Majd and Myers 1987), mitigating costly liquidation (Stulz 1990), decreasing the chances of debt overhang (Li and Li, 1996). The value-reducing causes are mainly associated with various agency costs. Managers may pursue value-

reducing diversification strategies to further their own interests at the expense of other stakeholders, which include, for example, empire-building, increasing the firm's demand for the manager's particular skills (managerial entrenchment), and decreasing the risk associated with managerial human capital (Montgomery 1994). Apart from these causes-considerations, the general costs associated with corporate diversification include the reductions in information transparency and in the effectiveness of market discipline, inefficient internal capital allocations and the agency costs of divisional rent-seeking (Scharfstein and Stein 1996; Stein 1997).

Empirical evidence tends to suggest that the net effect of corporate diversification is likely to reduce firm value in developed economies (see, e.g., Lang and Stulz 1994; Berger and Ofek 1995; Comment and Jarrell 1995; and Denis *et al.* 1997), and is likely to add firm value in developing economies (see, e.g. Claessens *et al.* 1999; Khanna and Palepu 1999, 2000).

In this research we further develop this perspective that the effect of firm diversification is a function of the firm's resource specificity as well as the market and institutional environment within which the firm operates. Generally speaking, in less developed economies, for instance, the lack of market intermediaries and contract enforcement mechanisms may be important reasons for strategic alliances and business diversification (see also Shleifer and Vichny 1997; Khanna and Palepu 2000). In developed economies, on the other hand, improved financial transparency, more efficient market intermediaries, more effective contract enforcement and competition may allow more concentrated firms to perform better. Attention will be paid to the policy implications of this perspective as well.

4.3 The ways to harden budget constraints of state-owned enterprises: the cases of Italy and China

Economists have long suggested that private ownership should generally be preferred to state-ownership, particularly, when the incentives to innovate and to contain costs must be strong (Shleifer 1998). Privatisation of state-owned enterprises (SOEs) have been seen to be desirable in many cases. However, even in the developed economies, the concrete operation of privatisation has been proven to be technically difficult and the effect of privatisation on performance is still an open empirical question. In the developing world, the pace of privatisation is uneven and the overall pace is slow. According to the World Bank (1995: 34), during 1978-91, in low-income developing countries, the share of SOEs in GDP seemed fixed at about 14 per cent; and in middle-

income developing countries, this share oscillated between 8 to 10 per cent, a level comparable to that in the developed world. According to the estimation in Ramamurti (1999, Tables 2 and 3), during 1988-1996, only about 9 per cent of SOE asset in the developing world may have been divested. In large developing economies such as India, Indonesia and Nigeria, less than 7 per cent of SOE asset may have been privatized.

In transition economies such as Czech Republic, Hungary, and Russia, although the pace of privatisation has been unprecedented and many studies estimated the proportion of economic activities that have been privatized at 50 per cent or more, the state may still account for 40-50 per cent of GDP. Furthermore, taking the Czech Republic as an example, almost half the shares in 'privatized' firms belong to the National Property Fund or to voucher funds controlled by state-owned banks (Spulber 1997; Ramamurti 1999).

The hard reality in many developing and transition economies is that weak market institutions are matched by equally weak legal, financial and government institutions. Under such circumstances, the policy issue of how to improve the performance of SOEs may be equally, if not more, as pressing as privatization. In the cases where privatization often results in large scale closing down and liquidating SOEs rather than revitalizing them, or where privatization means not only moving assets from the state to private sector, but also moving them from the formal to informal sector, pressing for rapid privatization may be shooting the wrong target and induce social and political miseries.

In the policy debate about how to improve the performance of SOEs, it has been highlighted that the lack of means to establish and sustain a hard budget constraint to SOEs seems to be one of the main reasons why the performance of SOEs in many countries are disappointing, because if facing a soft budget constraint, a firm, whether private or state-owned, would have little incentive to take market disciplines and financial pressures seriously (Kornai 1996; World Bank 1995; Shleifer and Vishny 1994, 1997). In this research, we examine two examples in which two different means have been employed to harden SOE budget constraint, and both them have worked well and have induced significant improvement in SOE performance.

The first example is the case of SOEs in Italy. As well documented in Bertero and Rondi (2000), SOEs in Italy play a major role in the economy, accounting for around 15 per cent of non-agricultural employment, 20 per cent of value added and 25 per cent of fixed investment (1991 data). SOEs in Italy are

organized through 100 per cent state-owned holding companies, with controlling interests in diversified sub-holdings. The sub-holdings may have minority private shareholders and own in turn individual enterprises. The environment in which Italian SOEs operated in the 1970s and up to the mid 1980s was one characterized by political interference, accommodating endowment funds and high debt provided by accommodating state-owned banks. Being consistent with the soft budget constraint that SOEs enjoyed, poor profitability, low productivity, high debt and heavy losses were the norm for the SOE sector during the same period.

By the early-1980s, the combination of three factors, mostly exogenous even to Italian government policy, induced a break-through and promoted a radical shift from a soft to a hard budget constraint. These three factors are the mounting level of public debt, the attempt of Italy to qualify for the European Monetary Union (EMU) and the EU pressure to reduce state aid and to accelerate the privatisation programmes. The EMU membership indirectly imposed discipline on fiscal and monetary policy. The Bank of Italy got greater independence and moved to market-oriented operation. The bank system in general increasingly faced the external market pressure from international competition and from the restructure of the European banking industry. The tightening of competition policy by the European Commission imposed a tighter discipline on state aid to SOEs. The public opinion also required a tighter discipline on the management of state fund. As a consequence, in the late 1980s, the environment in which Italy SOEs were operating became characterized by increasing competition at a European level, drying up of the endowment funds from the government, disappearance of soft credit from the state bank, and the threat of possible privatisation. In one word, SOEs had to face a hard budget constraint.

Based on a panel of 150 Italian SOEs over the period 1977-93, Bertero and Rondi (2000) demonstrate empirically that while these Italian SOEs had virtually no response to financial pressure in the period of soft budget constraint, they do actively respond to financial pressure during the period of hard budget constraint. Under a hard budget constraint, their behaviour is similar to that of private enterprises. Responding to financial pressure, these Italian SOEs in the sample made significant efforts to increase total factor productivity and to reduce staff as well.

It may not be straightforward to draw policy implications from the Italian experience for a national government, because some supranational factors have played a decisive role. However, the competition pressure of

globalization in general and in financial market in particular, may bring a similar impact into the SOE sector in many open economies.

The second example is the case of local government run SOEs in China. This example may be able to supply more direct policy implications for a national government. Since the early 1970s, local governments at county and city levels have come to control all small and a large proportion of medium-sized SOEs. Different from the situation in the former Soviet Union and Eastern Europe, the size distribution of SOEs in China is skewed toward the small and medium ones, and furthermore the distribution is spread across the country rather than geographically concentrated (Gu 1999). Therefore, ownership restructuring of these locally controlled SOEs is equally as significant as the restructuring of the large ones that are controlled by the central or provincial governments.

SOEs run by county and city governments have long been the most inefficient ones. They are often too small to apply economies of scale, but too bureaucratic to be able to exploit the advantage of their small size as TVEs usually can. Their survivals depend critically on soft taxation and other fiscal supports from the local government and on soft credit from the local branches of the state banks. However, in 1993 and 1994, the environment started to have essential changes. In 1993, the central bank reversed the long-standing monetary decentralization and deprived the administrative control of local governments over local branches of the state banks. Since then, local governments have no longer had the supervision rights over local branches of state banks. In 1995 China passed the 'Central Bank Law' to give the central bank the mandate for monetary policy independent of the local government. In 1998, the central bank further replaced its 30 provincial branches with 9 cross-province regional branches as in the US Federal Reserve system. While these reform might not fully remove the influence of provincial governments on monetary policy and credit allocation decisions, they certainly leave little room for county and city governments to exercise influences.

With regard to the tax and fiscal system, on 1 January 1994, China introduced major tax and fiscal reforms more aligned with international practices. A system of national tax bureau was established. A clear distinction between national and local taxes and a strict division of labour between the national and local tax bureaux were introduced. The reform also established fixed tax rules between the national and local governments. This fiscal reform has made it very difficult for local governments to reduce national taxes as they did in the past. In 1995, the new 'budget law' took effect. This law prohibits

the central government from borrowing from the central bank and from deficit financing its current account. The law imposes more stringent restrictions on local governments. In addition to the original requirement to realize local budget balance, the law strictly controls bond issuance by local governments and restricts local government borrowing in financial markets. To ensure the enforcement of the Budget Law, an independent auditing system was also introduced (Dong 1997).

As a consequence of these reforms in both fiscal and monetary areas, the overall budget constraints of local governments as well as their local SOEs became much harder in the 1990s than in the 1980s (Qian 1999). Without the help of soft credit from local branches of state banks and of soft taxation from the old fiscal system, local governments are no longer able to bail out loss-making local SOEs and have to look for alternatives. As a consequence, diversified forms have been employed to restructure the ownership and governance of local SOEs. These restructuring forms include selling, leasing, taking over, merging, restructuring through Sino-foreign joint venture, corporatization, and transforming to joint-stock co-operatives. All these reforms are quite radical from the viewpoint of traditional socialist ideology and this new round of radical reform has been initiated from below and implemented by county and city governments. By the late 1990s, in many cites and counties, SOEs largely disappeared and the replacements are typically characterized by hybrid ownership and partly by pure private ownership.

The Chinese experience indicates that the combination of a well-established fiscal decentralization and monetary centralization can provide positive incentive and induce a hard budget constraint to local governments. Delegating the control rights over SOEs to those local governments that face a hard budget constraint and intense market competition would lead to the induced and desirable restructuring of SOEs.

V CONCLUDING REMARKS: IMPLICATIONS FOR DEVELOPING AND TRANSITION ECONOMIES

This paper has presented a framework for the ongoing research project of UNU/WIDER on Property Rights Regimes, Microeconomic Incentives and Development. It also highlights the major research interests, questions, and focuses. The theoretical emphasis is on the very relevance of concrete

institutional context, development stages, and technological environment to the determination of ownership and governance structures of the firm, and on the rationality behind the emergence of unconventional ownership and governance structures of the firm in the industrial sector. One of major conclusions in this regard is as follows: given the fundamentals and foreseeing changes in institutional context, development stage, and technology, the major players of the corporate game, including owners, managers, employees, and other stakeholders, have the incentive to calculate comparative costs-benefits of various feasible ownership and governance structures and to look for a desirable equilibrium for the power game. The basic feature of this desirable equilibrium is that in it the firm's owners and employees are able to keep managers' opportunistic behaviour in check; owners and managers will be protected from employee extortion or shirking; and managers and employees can hold the opportunistic behaviour of owners in check and realize a reasonable return on their firm-specific investments. The ways leading to this equilibrium are not unique, alternatives are often possible.

To show the characteristics of major emerging unconventional ownership forms, we present four types of examples in Section 3. They include the rise of institutional ownership in large publicly traded corporations in the US and UK; the expansion of employee stock ownership in the US; the emergence of joint-stock co-operatives on a large scale in China; and the famous Mondragon co-operative group in Spain and Italian co-operatives in the La Lega network. To demonstrate how the changes in institutional and technological fundamentals alter the comparative cost-benefit balance of a given ownership form, we give four cases in Section 4. They include the story of both bright and dark sides of Japanese 'companyism' and the shift in the balance between these two sides in the 1990s; the reasons why group affiliations and business diversification increase the total value of the relevant firms in India and Chile; the successful experience from Italy in imposing and sustaining a hard budget constraint to SOEs by supranational forces, and the evidence from China in hardening the budget constraints of local governments and local SOEs through the evolving fiscal decentralization and monetary centralization. A in-depth examination into the political economy of these eight examples will be the task of the ongoing project.

In this concluding section, we would like to highlight several general lessons for developing and transition economies based on the analysis of this paper.

First, the hybrid forms of ownership and governance structures may have greater significance in developing and transition economies, because in these economies, firms have to use institutional, social, and intermediary resources from different channels, formally or informally. The hybrid mode can help them to reduce uncertainty in interorganizational relationships involving bilateral or multilateral dependence and can supply them an elastic contract mechanism to facilitate both continuity and dynamic adaptation. The evolution of ownership and governance structures of China's TVEs is the most striking example in this connection. In fact, even in the developed world, the form of employee stock ownership intends to have the hybrid advantages from both stock ownership and employee ownership. Mondragon co-operative group has successfully combined the collective motivation of its participants with the incentives of individual ownership on internal capital accumulation. Italian co-operatives associated with the La Lega network depend on the strategic alliance and network to overcome the shortcomings of conventional co-operatives in the areas of capital financing, marketing, and research and development. These innovative practices intend to take advantages from more than one institutional and organizational resource. They are certainly instructive for decisionmakers and entrepreneurs in developing and transition economies.

Second, the traditional dichotomy of ownership form in a way of 'nationally controlled SOEs' versus 'conventional private ownership' is narrow in perception and harmful in practice, because it leads to the ignorance of the rich varieties in ownership forms, which are typically linked with local innovations. While a national government typically has power in the allocation of both fiscal and monetary resources, local governments in general and those at lower level in particular would have much less chance to enjoy such power. Even in the case where the chance is large, their power in these two areas can be relatively easily removed, as proven by the Chinese experience in fiscal decentralization and monetary centralization. From this regard, the emergence of local government ownership in the SOE sector in Russia and other Former Soviet Union countries may have the potential to lead to effective and desirable restructuring of local controlled SOEs, provides that the urgently needed linkage between local fiscal revenue and local economic prosperity can be installed (Sun *et al.* 1999, Chapter 6; Zhuravskaya 2000).

Community governments at grassroots level deserve special attention in developing countries. These governments have no authority to involve in credit decision because they are at the lowest rank in the government

hierarchy. They have no power to regulate market to keep out competition, simply because the market within the community is both small and limited. As a consequence, the economic activities conducted by these community governments are usually confronted with a hard budget constraint and tight competition disciplines, thus could be much more healthy and efficient than those conducted by governments at higher levels. The key question in many developing countries is how to mobilize the enthusiasm of community governments and other community-based organizations to support or even directly initiate local enterprises. The experience of Chinese TVEs may be instructive in this regard.

Third, the emergence and evolution of institutional ownership in the developed world will supply very meaningful and instructive lessons to developing and transition economies. To establish a fully funded, privately managed and defined contribution pension scheme has become an ideal model for most transition and developing economies since the 1980s. For those countries with an existing unfunded Pay-As-You-Go (PAYG) pension scheme, increasingly and gradually shifting from the PAYG scheme to the ideal one has been the determined direction of their pension reforms (Holzmann 1997). In the foreseeing future, pension funds will become the major player of institutional ownership in these countries too, as has been proven by the experience of Chile in the 1980s. Leaning from the developed world in this field by imitating the successful innovations and avoiding the setbacks would bring certain 'backward advantages' in these less-developed countries in terms of promoting the development of financial institutions and institutional ownership and of modernizing their financial markets.

Furthermore, as we discussed in Section 3.1, such financial institutions as open-end mutual stock funds possess certain features of collectivist individualism, and may be able to play a more significant role in transition economies and some developing economies, because in these countries low levels of wealth and egalitarian distributions of wealth have been the norm. To use the channel of the open-end mutual stock fund to pool capital from individual small investors and then to invest in the shares of other corporations with the help of fund management skills would make significant contribution to capital accumulation in these countries. The feature that capital placed at the disposal of an open-end mutual fund can be withdrawn by its investors without seriously compromising its commitments to others represents a very desirable flexibility and accountability from the interest of small investors with low level of wealth. To make this type of financial institutions workable in transition and developing countries, both the

knowledge transfer of 'know-how' and technical assistance are urgently needed. International financial institutions like the World Bank group and international financial investors can play an active role in this area.

Fourth, scholars often treat the institutions and organizational forms that are popular in the west as the 'best practice institutions' and recommend that other countries should adopt these 'best practical institutions' as quickly and exclusively as possible. An oversupply of such perspectives usually brings in an externality of pessimism among scholars and the public about transition and development. We recommend the perspective to look for more effective institutions that are sufficiently adaptable to the environment and actively responsive to changes induced by innovation and reform. There has been a shortage of attention in this direction. Some of these adaptively effective institutions may converge to the existing best practice institutions in the future, some may not. Some of them may evolve into a new type of the best in certain stage and for certain periods, but not for ever. Some new best practice institutions may emerge as a hybrid mode of the existing best practice institutions and other less perfect institutions. While we are now generally aware of the importance of bio-diversity and gene-diversity for bio-evolution, we doe not have *ex ante* reason to refuse the diversity of institutional and organizational forms.

APPENDIX TABLE A-1
TOP 100 US COMPANIES THAT ARE OVER 50 PER CENT OWNED BY EMPLOYEES (BY MAY 2000)

Company	Location	Plan	Industry	Employees
Publix Supermarkets	Lakeland, FL	ESOP, stock purchase	supermarkets	109,000
United Airlines	Chicago, IL	ESOP	airline	81,000
Science Applications Intl.	San Diego, CA	ESOP & others	R&D & computer systems	35,000
TTC Inc.	Kankakee, IL	ESOP	employee leasing	26,000
Dyncorp	Reston, VA	ESOP	technical services.	17,000
Lifetouch	Minneapolis, MN	ESOP	photography studios	12,000
Edward Jones Co.	St. Louis, MO	ESOP	brokerage	10,000
Parsons Corp.	Pasadena, CA	ESOP	engrng., mining, construction.	10,000
Amsted Industries	Chicago, IL	ESOP	manufacture industrial prod.	9,300
Arrow Electronics	Melville, NY	ESOP	electronics distributor	9,000
Dillingham Construction	Pleasanton, CA	ESOP	construction	8,000
AECOM	Los Angeles, CA	ESOP	energy technology	7,000
Graybar Electric	St. Louis, MO	stock trust	electrical equipment	7,000
CH2M Hill, Inc.	Corvallis, OR	stock purchase	engineering, arch., & surveying	7,000
W.L. Gore Associates	Newark, DE	ESOP	high-tech mfr. Gore-Tex	7,000
Journal Communications	Milwaukee, WI	stock purchase	newspapers & communications	6,750
Ferrell Companies	Liberty, MO	ESOP	gas distribution	6,000
Davey Tree Expert Co.	Kent, OH	ESOP	tree service	6,000
Austin Industries	Dallas, TX	ESOP	construction	5,500
Nypro	Clinton, MA	ESOP	plastics mfr.	5,000
WinCo	Boise, ID	ESOP	supermarket chain	5,000
Herberger's	St. Cloud, MN	ESOP	retail	4,800
Treasure Chest Advertising	Glendora, CA	ESOP	printing	4,500
Herff Jones	Indianapolis, IN	ESOP	manufacture of awards and gifts	4,000
Tandycrafts	Ft. Worth, TX	ESOP	crafts	3,700
Andersen Corp.	Bayport, MN	ESOP	window manufacture	3,600
Columbia Forest Products	Portland, OR	ESOP	plywood	3,500
Capital Mercury Shirt Co.	New York, NY	ESOP	shirt manufacturer	3,000
Houchens Food Store	Bowling Green, KY	ESOP	supermarkets	3,000
Arthur D. Little	Cambridge, MA	profit sharing	consulting	3,000
American Cast Iron Pipe	Birmingham, AL	stock trust	iron pipe mfr.	3,000
Everen Securities	Chicago, IL	ESOP	brokerage	2,800
Foster and Gallagher	Peoria, IL	ESOP	direct mail	2,800
General Medical Group	Richmond, VA	ESOP	medical equipment	2,500
Cameron and Barkley	Charleston Hts., SC	ESOP	industrial/elec. supply	2,500
Medicalodges	Coffeyville, KS	ESOP	nursing homes	2,125
National Spinning Company	New York, NY	ESOP	textiles	2,025
Golder Associates	Atlanta, GA	stock purchase	engineering	2,000
Merkert Enterprises	Canton, MA	ESOP	food broker	2,000

Norcal Waste Systems	SF, CA	ESOP	waste disposal	2,000
Woodman's	Janesville, WI	ESOP	supermarket	1,800
HDR, Inc.	Omaha, NE	ESOP	engineering	1800
Hensel-Phelps Inc.	Greeley, CO	ESOP	construction	1,800
Erickson's Diversified Corp.	Hudson, WI	ESOP	supermarkets	1,775
Rosauer's Supermarkets Inc.	Spokane, WA	ESOP	supermarket	1,750
Stiefel Labs	Coral Gables, FL	ESOP	pharmaceuticals	1,600
Bureau of Natl. Affairs Inc.	Washington, DC	stock purchase	publisher	1,600
Aspen Systems Corp.	Rockville, MD	ESOP	computer services	1,500
Sundt Corp.	Tucson, AZ	ESOP	construction	1,500
Kolbe and Kolbe	Wausau, WI	stock bonus	window mfr.	1,500
Rieth-Riley Construction	Elkhart, IN	ESOP	construction	1,500
Matthews International	Pittsburgh, PA	stock purchase	marking devices	1,475
Acadian Ambulance	Lafayette, LA	ESOP	ambulance services	1,400
Charles Machine Works	Perry, OK	ESOP	backhoes	1,300
Tidyman's Warehouse Foods	Spokane, WA	ESOP	grocery retail	1,250
Burns & McDonnell Engr. Co.	Kansas City, MO	ESOP	engineering/architect	1,250
Swank Inc.	Attleboro, MA	ESOP	leather goods	1,230
Price Brothers	Dayton, OH	ESOP	pipe mfr.	1,200
Hot Dog on a Stick	Solano Beach, CA	ESOP	fast food outlets	1,200
Dahl's Inc.	Des Moines, IA	ESOP	supermarkets	1,200
Cranston Print Works	Cranston, RI	ESOP	textile printing	1,175
Mutual Savings Life	Decatur, AL	ESOP	insurance	1,117
Zandex	Zanesville, OH	ESOP	nursing homes	1,100
Fluoroware, Inc.	Chaska, MN	ESOP	microelectronics	1,050
Ebby Halliday Realtors	Dallas, TX	ESOP	real estate	1,000
Terracon	Lenexa, KS	ESOP	engineering	1,000
AIL Systems	Deer Park, NY	ESOP	navigation equipment	1,000
STV Engineers	Pottstown, PA	ESOP	engineering/architect	1,000
Mulay Plastics	Addison, IL	ESOP	plastics	1,000
Reliable Stores	Columbia, MD	ESOP	dept. store chain	1,000
Okonite Company	Ramsey, NJ	ESOP	wire & cable manufacturer	1,000
Kleinfelder	Walnut Creek, CA	ESOP	engineering	950
Pinkerton Computer Cnslsts.	Langhorne, PA	ESOP	consulting	900
John McMullen Associates	Arlington, VA	ESOP	engineering (naval)	850
National Refractories & Min	Livermore, CA	ESOP	Brick/Clay Refr	850
Russ' IGA	Lincoln, NE	ESOP	supermarkets	850
Texas Foundries	Lufkin, TX	ESOP	mfr., pipes, castings, etc.	850
American Systems Corporation	Chantilly, VA	ESOP	technical services	800
Rockford Products Corp.	Rockford, IL	ESOP	threaded fasteners	800
Decorative Surfaces	St. Louis, MO	ESOP	coated fabrics	750
USIS	Annandale, PA	ESOP	background checks	750
Brown and Caldwell	Concord, CA	ESOP	engineering	750
Walman Optical	Minneapolis, MN	ESOP	optical supplies	720
American Excelsior	Arlington, VA	ESOP	sawmill products	710
National Forge	Irvine, PA	ESOP	forge	700
Butera Finer Foods	Elgin, IL	ESOP	supermarkets	700
Worcester Textile Co.	N. Providence, RI	ESOP	textiles	700

Dalton Foundries	Warsaw, IN	ESOP	castings	700
PrimeSource	Irvine, CA	ESOP	hardware retail	660
Metro Machine	Norfolk, VA	ESOP	shipbuilding	650
Fred Weber	Maryland Hts., MO	ESOP	contractor	650
Branch Group	Roanoke, VA	ESOP	construction	600
Continental Maritime	San Diego, CA	ESOP	shipbuilding	600
TDIndustries, Inc.	Dallas, TX	stock purchase	heating/AC	600
Memphis Hardwood Flooring	Memphis, TN	ESOP	flooring mfr.	575
Spectera	Baltimore, MD	ESOP	insurance	550
King and Prince Seafoods	Brunswick, GA	ESOP	seafood manufacturer	550
Dan's Super Markets, Inc.	Bismark, ND	ESOP	supermarkets	550
Mobile Tool Int'l	Westminster, CO	ESOP	platforms mfr.	525
Mad Butcher Inc.	Pine Bluff, AR	ESOP	supermarkets	525

Note: The 'employee' column gives the total number of employees in the corresponding company.

Source: NCEO (2000c), 'The Employee Ownership 100', http://www.nceo.org /library /eo100.html.

NEW PARADIGMS ON OWNERSHIP OF THE FIRM

(chapter plan)

Chapter 1 Introduction: new paradigms of property rights regimes are in action

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Chapter 11 Ways forward: pluralism or converge? Implications for developing and transition economies

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