Employee stock ownership firms, producer co-operatives and the forgotten model of Mondragon

George Tseo

Favorable legislation has caused employee buy-outs of enterprises through stock acquisition to become a major means of privatizing enterprises both in the U.S. and the reforming command economies of Eastern Europe and the former Soviet Union. However, in areas where community solidarity is high, such as China, employee stock ownership with its well-defined property rights may undermine group cohesion and hence enterprise performance. In rural China, different types of cooperatives have proved relatively extremely efficient. Moreover, from the employee's perspective stock-based ownership is financially less stable than cooperative-share ownership. Hence, the producer cooperative remains a relevant model for industrial organization. As for the limited capitalization of tradition cooperatives, this limitation can be addressed through strategies ranging from partial stock capitalization to bank capitalization. The latter happens to be a foundational aspect of the most advanced cooperative superstructure model—the Mondragon corporate group of northern Spain—which is reviewed. Critical discreditation of this model due to its singularity is analyzed, and likely impediments to the emulation are discussed. Both Mondragon's lasting significance and the future of cooperative superstructure development are considered.

The rising tide of worldwide employee stock ownership

In the corporate world, employee ownership of equity and participation in management have grown greatly in stature as the business advantages of these organizational principles have become ever increasingly evident. While econometric studies offer only weak positive correlation between enterprise productivity and employee ownership (Jensen and Meckling, 1979; Conte and Svejnar, 1988; Estrin, Jones and Svejnar, 1987), empirical statistical studies, including econometric analyses, indicate that enterprise productivity and growth are both substantially positively correlated to equity sharing combined with worker participation in management even while taking into account other production-related factors (Cable and Fitzroy, 1980; Defourney, Estrin and Jones, 1985; Conte and Svejnar, 1988; Cable, 1988; NCEO, 1993a). Consider the recent U.S. comparative study of 45 employee-owned companies and 238 conventional firms (Rosen and Quarrey, 1987). Five years after the implementation of employee stock ownership plans, the subject firms had experienced cumulative increases of employment and sales that were on average 5.05% and 5.4% greater than in the control firms. Employee stock ownership companies that also instituted employee participation in management realized 3 to 4 times faster growth than those that did not.

Of the approximately 7,000 companies listed on American stock exchanges, about 1,000 firms are at least 10% employee held. Performance indices for these publically-traded employee ownership firms consistently indicate superior growth in stock value relative to non-employee ownership firms. For example, in 1992 the Employee Ownership Index showed an average jump of 22.9% while the Dow Jones Industrial Average for 30 of the most heavily traded firms on the New York Stock Exchange showed an average stock appreciation of only 4.17% (American Capital Strategies, pers. comm., 1995). The following year these two indices stood at 20.1% and 13.72%, respectively. Strictly speaking, the Employee Ownership Index and the Dow Jones Industrial Average are not comparable since the former is equal weighted while the latter weighted according to firm size in terms of capitalization. However, indices similarly weighted according to firm size exhibited similar tendency. For example, the capitalization weighted Employee Ownership Index for 1992 showed a 15.2% average growth in stock value while the leading Standard & Poors 500 index showed a 4.46% average growth. For 1993 these two index averages stood at 14.0% and 7.06% respectively.

The anecdotal evidence can be compelling. Consider that for Springfield Remanufacturing Corp (SRC), an engineering remanufacturing firm, its stock share price rose from $0.10 in 1983 when the foundering company became an employee ownership enterprise[1] to $18 only seven years later. At Science Applications International Corp (SAIC), a scientific research firm, an initial employee stock investment of $500 in 1969 when the company opened was by 1990 worth $932,000 (Simmons, pers. comm., 1993). In 1992, Ralph Parsons Corp, a civil engineering and construction firm, paid out $44 million in retirement holdings; last year, Parsons paid out $85 million (Veje, pers. comm., 1994). It is a company of many millionaires, not just a few. Charles Valentine, whose weekly salary as a warehouse laborer at the home building supply chain Lowe's Company never rose above $125, retired with company stock holdings of $660,000 (Simmons and Mares, in press).

The credit high-tide of the 1980's spawned the "taking private movement" through leveraged buy-outs, and ironically, from this emerged the closely-related yet divergent development of leveraged buy-outs by managers and, increasingly, non-managerial employees (Jensen, 1989; Wright, Thompson and Robbie, 1989). Consequently, when in 1974 the U.S. Congress enacted the first of a series of tax incentives for employee stock ownership programs (ESOPs) (Rosen and Quarry, 1987), management and employee buy-outs received the legal catalysts necessary for rapid spread. American companies with ESOPs increased from 1,600 in 1975, covering just under 1/4 million workers, to nearly 10,000 in 1991, covering well over 11 million workers (ibid). Through the end of the 1980s, this subsector grew at annual rates of 400 to 800 fresh plans and 400,000 to 1,000,000 new participants. However during the 1990s the total numbers of U.S. ESOPs and workers covered have not changed significantly (NCEO. 1994). Among the several reasons for this are the conversion of successful ESOP companies back to conventional capitalist firms as employees sell off their shares at substantial profits, new tax incentives that have encouraged some publically-traded employee ownership companies to terminate their ESOPs and the general reduction of credit offered by banks for corporate buyouts in the more austere financial climate of the early 1990s. American ESOPs currently control about $150 billion in corporate stock (out of a total approximate U.S. corporate equity of $6 trillion), and employees own another $100 billion in stock through other types of equity-ownership plans (NCEO, 1995a). U.S. companies with majority interests held by their employees include Publix Supermarkets with a work force of 65,000, Avis with 13,500, SAIC with 13,000, Parsons Corp with 8,000, Avondale Shipyards with 7,500 and America's most efficient steel maker Wierton Steel with 6,900 (NCEO, 1993b).

Management and employee buy-outs put the potential gains and risks of a business squarely in the hands of those who produce goods and services, of those upon whom a business ultimately depends for its survival and growth. Employee participation in management provides a business with access to the energy and talent of its entire work force, and maximum realization of this energy and talent depends upon the trust that can be nurtured between management and labor and effective participatory schemes. Corporate gains translate into the personal individual gains of employees and indeed also potential additional corporate and even macroeconomic benefits; possible employee compensation far exceeds what is conventionally feasible, thereby offering at least the prospect of corporate and state reductions in retirement and other entitlements. Additionally, there is the theoretical macroeconomic benefit of expanded consumerism since widespread employee ownership may stimulate growth due to heightened demand (Kelso and Hetter, 1967; Kelso and Mortimer, 1960). Not surprisingly, therefore, the predominantly American and British ESOP model has gained ascendency in the world as a likely development strategy. Currently, 35 developing countries and formerly socialist countries implementing free market reforms have created legislation governing employee stock ownership, most of which promotes its role in the privatization process (NCEO, 1992b).

Typically, 10-20% discount is offered employees of state enterprises on the price of shares in their firms with a limit of 10-30% on the proportion of stocks permissible for acquisition by the work force. In Bulgaria workers have the potentially frustrating option of up to 49% of their firms at up to 50% discount. In Khazakstan workers may buy 100% of their companies with a 30-50% discount, and similarly favorable terms are available to workers in Chile and Poland. So far, of Poland's 6,200 state enterprises about 800 have been sold and approximately 40% of these have gone to their employees (NCEO, 1993c). In Slovenia, where workers may also acquire 100% of their firms, the majority of the 20-30% of state firms sold to date have been bought by their employees. In the Czech Republic workers are restricted to quarter ownership of their firms, and about 25% of privatized enterprises subscribe to this limited form of employee ownership. As of May 1992, 350 out of 590 privatized eastern German firms had broad employee equity programs, mainly through options for share purchase. Hungary has highly pro-ownership legislation in place, but so far only 20-40 of the 400 firms privatized are ESOPs (ibid). About 100 more Hungarian firms are investigating this option.

In Russia, employee ownership has become a major engine of privatization. Workers may acquire 51% of voting shares in their firms provided that private financing can be arranged, and the remaining 49% is publicly auctioned off through the vouchers system[2]. It has been estimated that about 70% of Russian firms are now employee ownership enterprises (Simmons, pers. comm., 1993), and by March of last year the 51% option had been adopted by about half of the companies privatized through employee acquisition (Blasi, 1993). China's booming economy, perpetually hungry for investment funds, is a land ripe with opportunity for ownership diversification, and the country's fascination with stocks has more or less naturally channelled attention in urban areas to different and often unique types of employee stock ownership. Already 47% of Chinese workers own shares in their companies, and employee ownership firms include some of the largest and fastest growing concerns in the country. The powerful State Commission for Restructuring Economic Systems is currently debating the exact regulatory form of employee stock ownership, which it wishes to promote as a primary means of reforming small and medium-sized state-owned and collective enterprises (Jia Heting, 1994).

Despite this cascade of activity, this seeming snowball effect of employee stock ownership as an expanding world movement, stock acquisition schemes may not offer the best alternatives for enterprise development in all situations. In Russia, for example, stock acquisition through use of a vouchers program has, under the unstable conditions wrought by economic shock therapy and internecine political strife, opened an opportunity for organized crime. It was recently reported that the Russian mafia has been buying controlling shares of auctioned state-owned enterprises using counterfeit privatization vouchers (Hersh, 1994). Perhaps 30 to 50% of U.S. Agency for International Development funds budgeted for Russia's privatization program ultimately benefits criminal interests.

Also, Russian policy makers seem actually to prefer that majority ownership in firms transfer over time from workers to managers. A recent study involving about 160 Russian firms indicates that this is precisely the direction in which reform is spontaneously moving (Blasi, 1994). In 1993, Russian workers owned on average 56.4% of 141 firms surveyed, managers 8.6%, outsiders 21.5% and the state 12.9%. The following year, these shares of ownership had changed to 42%, 17%, 29% and 10% respectively. Not only did employees lose substantial ownership share to managers and outsiders but so too did the state. Other evidence from the same study indicates that boards of directors are already dominated by managers. In 1994, the boards of 61 subject firms were on average composed of 3 managers, 1.2 non-state outsiders, 1 state representative and 0.2 non-management employees. Apparently, the manager domination characteristic of the old Soviet enterprise system has not changed. It should be noted, however, that some Russian firms are exceptional in that majority employee ownership has been maintained and genuine employee participation in management implemented (e.g. Krasney Proletary, Veshky, Moven, Saratov Aviation, etc.). It remains to be seen if the performance advantages of empowerment are widely realized within Russia.

Russia as well as the other reforming nations of the former Soviet Union and Eastern Europe are hampered by another fundamental obstacle to the adoption of Western-style employee stock ownership, namely an extremely high level of bad bank loans. Years and decades of obligatory bank credit for state-owned enterprises, which are more often than not incapable of debt service, have depleted capital resources and made bankers wary, to say the least, of financing leveraged buy-outs by employees.

In China, where stability has been maintained and criminality is not a serious widespread problem, enterprise managers attest to the fact that bank loans for ESOPs are virtually impossible to obtain, precisely due to the long-standing crisis of bad credit. Here, however, at least a temporary solution has been found in the direct purchase of stocks by employees, by far the most prevalent acquisition scheme although other methods are being tried. Consider Beijing Orient Electronics (Group) Co. Ltd. where the sales of just 3% of total shares to the work force coincide with a turnaround from chronic annual losses into 60% annual gains in gross income in each of the first two years of the employee stock acquisition program (Chen Yan-shun, pers. comm., 1994). More information is needed in order to establish a clear causal relationship; for example, a possible change in top management is another potential determinant. In any case, Beijing Orient's board of directors intends to allow its roughly 10,000 employees to purchase 49% of total shares, purportedly the maximum proportion allowable by the state for defense-related firms of its type. At Bohai Steel Construction Materials, a Shandong province corporate group of 30 enterprises, the sale of just over 20% of shares to employees in 1993 coincided with a boost in gross profits of 83.4% over the previous year (Bohai Steel Construction Materials Corp Group, 1994).

In the small city of Zhu Chen in Shandong, a survey study of local state-owned enterprises revealed the extent of money loss and prompted the local government to investigate reform through employee buyouts or adoption of a "stock-cooperative system" (China Market Economy Research Centre, 1995). Zhu Chen Electrical Equipment, a small producer of generators with 277 workers, was selected for a trial. After discussions were held with the employees regarding two proposed plans, one allowing employees to purchase up to 20% of the firm's shares while the state retained managerial control and the other allowing purchase of 100% of shares while the state retained only ownership of the land, the work force elected in 1993 to buy out the state with a bid of 2.7 million RMB. Within four months, profits had jumped more than 100%. In 1994 output value and gross sales rose by 51% and 80%, respectively (Sun Hua Chu, 1994). Encouraged by their initial success the Zhu Chen city government formed a committee to organize cadre training (China Market Economy Research Centre, 1995). The informed cadres then dispersed to local firms to educate managers. Each firm, in turn, formed committees to discuss the details of employee buyouts, such as the funding constraints of employees, documentation, etc. By July of 1994, 248 local firms had undertaken total employee buyouts and 2 more firms partial buyouts.

In China, direct employee purchase of shares is viable due to public fascination with stocks. High inflation and low-interest returns on bank savings and special medium- and long-term interest-bearing accounts make stocks an attractive investment alternative. By the same token, however, the public's fascination with stocks may be fragile, possibly dependent upon a rising index. Recent downward adjustments in the Shanghai and Shenzhen stock exchanges have piqued speculation that the interest of employees in shares purchases may be waning. More importantly perhaps, past Chinese experiences have shown that the public trading of enterprise shares can defeat the purpose of employee ownership (Cao Feng Ci, 1994) since stock is no longer perceived as an instrument that enables employees to reap the benefits of long-term equity growth, upon which they can personally impact, but rather a purely speculative instrument for short-term gains. The employee shareholder assumes the psyche of a gambler rather than an owner. The correction for this defect is, of course, non-tradeable employee stock offerings redeemable only at retirement or departure from the firm (Jia Heting, 1994), for certain sanctioned high-expense purposes (such as apartment purchase) or periodically at preset intervals (Ellerman, 1994).

Employee stock ownership versus cooperativism

Within the market lies a fundamental disadvantage of employee stock ownership as compared to the collective ownership of cooperatives. A publically-traded company's stock is determined only in part by its own assets and activities; to large measure external market forces, over which a company can have little of no influence, determines stock and, thereby, equity value. These external factors can be regulatory in nature or systemic to the stock markets, due to gross imbalances in the demand for stocks and their supply and quality or to political events, as has been shown to be of paramount importance in China (Mok and Yao, 1993). They can be linked to natural occurrences, such as climatically benevolent growing seasons and prolonged droughts, or to events far beyond the boundaries of a country. In short, the employee owner's share is susceptible to market fluctuations; the value of his equity holding is inherently unstable. While ESOPs can help protect against hostile takeover, they cannot remove this danger entirely. For non-traded employee stock ownership firms, external buy-out is not a possibility, but equity value is determined by periodic business appraisals, so market changes may still have an affect through the valuation process although instabilities are probably dampened. Additionally, the expense and sometimes disruption of the appraisal process must detract at least to a minor extent from total equity value. U.S. and U.S.-style ESOP firms bear the additional substantial legal and banking costs of maintaining external trusts for holding shares as employees pay off the bank loans originally used to leverage buy-out.

ESOP companies must not only contend with potential external threats of buy-out but also above-average internal capitalization pressures, which if unsuccessfully dealt with can lead to the former. Upon retirement or departure, employees seek to sell their stock holdings. If their firms wish to maintain a substantial employee share of equity, then they must raise funds to repurchase these shares. Hence, firms must maintain funds for this purpose. Methods range for doing so from additional leveraging to company-owned life insurance (NCEO, 1995b). Needless to say, this problem can present a considerable strain, especially when large numbers of employees depart within a short space of time. As alluded to earlier, the lack of growth in the total numbers of U.S. ESOPs in the 1990s is partially due to the selling of stock holdings by employees.

In contrast, employee holdings in producer cooperatives typically accrue through annual profit distributions. Thus, personal equity holdings are not directly assailable by market instabilities, except through variations in currency exchange rate. While in some cooperatives annual losses are also absorbed by capital holdings, the value of the employee member's equity holding, whether it rises or falls, is nevertheless dependent on his firm's own assets and activities rather than on external factors. Moreover, employees' capital accounts obviate the need to maintain funds for shares repurchase, and they also function much as an informal internal trust of sorts as opposed to the formal external trust utilized by U.S. ESOP companies. This is a distinct advantage since the legal and accountancy services needed to maintain an external trust are costly. The external trust of U.S. ESOPs is non-essential, arising as it does from circumstances peculiar to American industrial and financial history (Ellerman, 1990). Indeed there is some evidence that the internal trusts of the emerging Russian employee ownership firms are based on the capital accounts of the Mondragon group of cooperatives in northern Spain (ibid).

It should be noted that a potential problem shared by ESOPs and cooperatives alike is the possible overconcentration of employees' equity in single investments. It is one thing to motivate employees by tying their personal financial interests to the performance and growth of their companies and quite another to expose their assets to the inherent risk of single investments. U.S. ESOPs diversify their employees' investments through 401(k) plans. Similarly in Chile, state provisions require the sales of at least 12.5% of a privatizing firm to its employees (with no practical maximum limitation) while at the same time 12% of each employee's salary must go into one of 24 Chilean stock funds[3].

Returning to the rich national case of China, given the volatility of its stock market and the relative simplicity, stability and autonomy of cooperatives, it is little wonder that cooperatives of different types rather than joint-stock companies account for 74% of total industrial output in rural areas and comprise approximately 92% of rural township and village enterprises (TVEs). As perhaps the major driving force of Chinese industrial reform TVEs have caused state-owned enterprises to decrease their share of total industrial output from 78% in 1978 to 53% in 1991 (Weitzman and Xu, 1994). A recent lower limit estimate of TVEs total factor productivity (TFP), which is calculated as a residual after subtracting the growth rates of labor and capital inputs from output growth, reveals an average annual TFP growth rate of 12%, which is three times higher than that for state-owned enterprises (SOEs) (ibid). This finding is corroborated by similar analyses, some drawn from quite different data sources (Chen et al. 1988; Lau and Brada, 1990; Svejnar, 1990; Jeffereson et al. 1992; Woo et al. 1993 & 1994). Relative to rural private firms, TVEs enjoy a comparable level of performance (Svejnar, 1990; Pitt and Putterman, 1992). Small wonder, therefore, that by 1991, TVEs already accounted for $18 billion in exports or 25% of the national total (Zweig, 1992), and by 1993, these figures had jumped to $27 billion or 45% of the national total (Xi Mi, 1993).

TVEs are "collectively" owned by communities, and management is heavily influenced by local governments, although major enterprise decisions are often made by assemblies of community residents. Unlike the standard Western development model, ownership is usually and often intentionally left undefined since the actual basis of this enterprise form is not property rights but the interpersonal trust between labor and management (Weitzman and Xu, 1994). Given the high degree of solidarity of Chinese rural communities, property delineation would be an unnecessary inconvenience more likely to foster alienation and undermine performance than to promote efficiency. Community benefits, individual bonuses and secure employment offer work incentive.

Despite their efficiency and dominance, TVEs have not realized maximal growth either in terms of capitalization or employment. Indeed, the limitation of capitalization is precisely the major disadvantage of traditional producer cooperatives. While undoubtedly a special and unique case, the Chinese example nonetheless offers insights into the general phenomenon. Between 1978 and 1992, total peasant household deposits rose from 5.57 billion yuan to 286.73 billion yuan (China Statistical Yearbook 1990, 1990; China Statistical Yearbook 1993, 1993), but deposits of both TVEs and agricultural cooperatives remained at low levels throughout the reform era, reaching only 30.18 billion yuan by 1992 (China Statistical Yearbook 1993, 1993). Managers withheld enterprise earnings from banks for fear of policy shifts that might freeze their accounts, in anticipation of auditing and from frustration with slow and poor service (Bowles, and White, 1989). Of the funds accrued by rural credit cooperatives, at least 30% must, in turn, be deposited in their parent institution the Agricultural Bank of China, which has a dismal investment record (Tam, 1988). As a result, only a small portion of available regional funds are fruitfully invested.

While clearly not disadvantageous, the ownership structure of TVEs may nonetheless be adjusted to boost performance beyond its current high levels. Presently, 60% or more of a TVE's after-tax profits must be retained by the firm for reinvestment and distribution into a collective welfare fund and a bonus fund (The PRC Regulations of Rural Collectively-owned Enterprises, 1990). Even the 40% or less of remaining after-tax profits, which may be 'distributed' among community residents, are for the most part spent at the discretion of local authorities for projects with collective benefits, such as agricultural infrastructure construction and the start-up of new enterprises (ibid). Hence, the relationship between an employee's individual efforts and the benefits he obtains due to the growth of his share of equity is often too vague to provide added incentive.

The dual needs to promote the mobilization of regional funds for investment and to boost labor motivation (but without the sacrifice of collectivity) have prompted experiments in limited stock capitalization. Typically for joint-stock TVEs, about 80% of shares are retained by the company or local government while 20% is sold to employees (Weitzman and Xu, 1994). In Jiangsu's highly industrialized rural district Wu Xi County, for example, TVE stock shares are allocated to community residents, employees and cadres in a 50:30:20 split (Yuan, pers. comm., 1994). This scheme is designed to provide equity-based compensation (the better for focusing shareholders upon the needs for long-term enterprise growth) while at the same time accommodating both community devotion to collective ownership and local bureaucratic realities.

In one comparative study of TVEs and world enterprises, it was concluded that TVEs most resembled producer cooperatives, including those in Eastern Europe, the former Yugoslavia and Mondragon, Spain (Weitzman and Xu, 1994). In a similar vein, the Russian privatization program using vouchers is an attempt to address the unwritten but palpable public mandate for collective entitlement (Kotova, Vasiliev and Abramove, 1993). Employee stock ownership, based as it is upon well-defined property rights, is a viable strategy for enterprise reform in areas characterized by a low degree of community solidarity, such as perhaps Eastern Europe (Weitzman and Xu, 1994). On the other hand, cooperativism, with its relatively vague ownership distinction, may offer a more effective strategy in areas where communities are highly cohesive, such as China, Vietnam, North Korea and, to a lesser extent, Russia (ibid). In this context, the Russian mixture of stock capitalization and initially uniform public ownership through the distribution of vouchers is sensible.

It is possible that different sectors of a single country may be better suited to one strategy or the other or to hybridized systems incorporating aspects of both strategies. Summarizing the Chinese experience, enterprise reform in urban and rural sectors are progressing along different lines more or less in keeping with the natural societal constraints of the two settings, and TVEs do indeed seem to be developing hybridized systems. Accordingly, the All-China Federation of Trade Unions, which is affiliated with approximately 800,000 urban state-owned and collective enterprises, is debating employee stock ownership as a major strategy for enterprise development, especially for the 100,000 collectives under its direct jurisdiction (Sun Hua Chu, pers. comm., 1994), and as mentioned earlier the State Commission for Restructuring Economic Systems wishes to promote employee stock ownership for the reform of small and medium firms (Jia Heting, pers. comm., 1994). With regards to TVEs, however, the Ministry of Agriculture in 1988 considered the adoption of the Spanish Mondragon cooperative model, which is predicated on bank capitalization, as well as limited joint-stock reforms. Were it not for the insurrection of spring 1989, which prompted four of five Ministry of Agriculture officials visiting Mondragon to defect, this system might well have been applied in rural China as a regional trial. Despite the derailment, the Ministry of Agriculture's Executing Office for Rural Reform Experimental Areas continued to consider the Spanish model until 1993 when the momentum of the joint-stock trend became overwhelming.

One underlying rationale for the Ministry of Agriculture's initial interest in Mondragon was the view that bank capitalization could address the credit constraints of traditional cooperatives. It was perhaps less well appreciated but no less valid that bank capitalization could also help avoid the potential problems of employee stock ownership. Another facet that clearly attracted the attention of Chinese officials was Mondragon's demonstration of how a poor and isolated rural town (albeit in a traditionally relatively industrialized region of the country) can transform itself into the commercial heart of an affluent and modern region. In China and countries like it, where massive peasant unemployment in an underdeveloped rural hinterland threatens to inundate the industrialized cities with a flood of migrant laborers, the expansion of rural industry is of paramount importance. In actuality, the lessons of Mondragon are just as cogent to industrialized countries, which makes it a double misfortune that this model seems to have been largely dismissed by economists as a regional anomaly with no wider utility.

The corporate superstructure model of Mondragon

One might argue that the dilution of authority in an employee participation firm and the endless debate of group leadership would make it difficult if not impossible to establish complex organizational structures. Doubt is suspended by Mondragon, a once tiny village in the mountainous Basque region of northern Spain. In 1956, a small factory manufacturing portable paraffin heaters was started by 24 workers and 96 other local people, who provided funds (Thomas and Logan, 1982). By 1985, this modest venture had grown into an integrated consortium of 111 major producer cooperatives distributed across the Basque region and comprised of nearly 20,000 employee-owners (Weiner and Oakeshott, 1987). Total sales in 1990 reached $2.9 billion, which was over 15% of the Gross Domestic Product of the entire Basque region (Turpin-Forster, 1992). Products ranged from furniture to machine tools, plastic forms to agricultural chemicals, nuts and bolts to earth excavators (Flessati, 1980). In addition to manufacturing, there are nine agricultural cooperatives (Cornforth, 1988) producing dairy products, livestock, fodder, vegetables, fruits, wine, timber and fertilizer, 17 construction cooperatives providing housing mainly in the form of high-rise apartments and a consumer cooperative with 225 outlets and over 130,000 consumer-members (Whyte and Whyte, 1991).

At the core of this remarkable corporate group is Mondragon's employee-owned bank, Caja Laboral, which mobilizes regional small savings so effectively that the need for stock capitalization is completely eliminated (Thomas and Logan, 1982; Whyte and Whyte, 1991). Just as with the Japanese kereitsu corporate groups, Caja Laboral offers the advantage of "patient capital" (permitting the development of products and markets over periods of years) and removes any threat of external financial control. In addition to the central bank, the Mondragon firms are bolstered by a comprehensive host of other support institutions. Cooperative schools educate children from the preschool level up and provide programs in language training and continuing adult education (Flessati, 1980). A technical university, Escuela Politechnica Professional, trains engineers (Thomas and Logan, 1982). A business college, Escuela Tecnica Empresarial de Onate, educates managers (Whyte and Whyte, 1991), and a management research and advanced training center, Otalora, offers executive seminar courses. Alecoop, a fully-functional producer cooperative, offers university students practical experience as well as the opportunity to pay for their own education (Flessati, 1980; Meek and Woodsworth, 1990). Ikerlan, a cooperative research institute, is highly regarded in the European Community and provides a degree of technological independence (Whyte and Whyte, 1991). Finally, Lagun-Aro, a social security cooperative, provides insurance, pension plans and direct health care services (Thomas and Logan, 1982; Whyte and Whyte, 1991).

Like the giant state-owned firms of the past in the former Soviet Bloc and yet of the present in China, Mondragon is not merely a business concern but a socio-economic community. Moreover and as alluded to above, its implications may be profound for China where the need for rural industrialization and urbanization is acute since Mondragon evolved in a situation almost wholly deprived of public education and infrastructure. The area's modern school system grew out of the cooperatives, and even today, not a single rail line reaches into the highly developed valley. Much of the surrounding region remains heavily wooded; many of the outside towns and villages are still small collections of centuries-old buildings clustered around the community church.

With respect to equity ownership and profit sharing, workers pay into individual capital accounts upon entry into a Mondragon firm, and up to 70% of each firm's surplus net annual profits is paid into these capital accounts (Thomas and Logan, 1982), although today the share is typically 45% (Moye, 1992). During years of budgetary deficit, up to 70% of enterprise losses can be absorbed by employees' capital accounts (ibid). This reciprocal share in risk may serve to affirm the linkage between productivity and compensation. With respect to managerial participation, all Mondragon firms are ultimately governed by General Assemblies, comprised of all employee-owners (Thomas and Logan, 1982). The General Assemblies convene once a year to approve financial accounts, deliberate internal financial policies, especially those pertaining to capital accounts, to deal with administrative matters and to elect members to the Supervisory

Boards (Thomas and Logan, 1982). While the maximum pay grade ratio between the salaries of the lowest paid workers and the highest paid managers in Mondragon firms is 1:6, the votes of all employee-owners is equally weighted (Whyte and Whyte, 1991). Operational policy for a firm is determined by the Supervisory Board, and implementation of policy is the responsibility of the director, who advises the Board but cannot vote on decisions (Thomas and Logan, 1982). A Management Council monitors the Supervisory Board (ibid), and a Social Council acts much as a union in advocating workers' rights (Whyte and Whyte, 1991).

Unification of ownership and control in a context of advanced corporate superstructure has created an extraordinarily efficient and stable system. In 1972, the Mondragon industrial firms boasted 40% higher production efficiency than small and medium conventionally capitalist Spanish firms and 7.5% greater efficiency than large ones (Thomas and Logan, 1982). Job creation within the group continued through the Spanish recession of the late 1970s (Thomas and Logan, 1982), and during the more severe national recession of the early 1980s, the group increased exports from about 20% to 30% of output (Whyte and Whyte, 1991). In 1985, only 104 Mondragon workers or 0.6% of the total labor force was unoccupied and drawing welfare benefits from Lagun-Aro (Whyte and Whyte, 1991) as compared to approximately 22% unemployment throughout Spain and a slightly higher level in the Basque region (The Economist, 1989). Of 103 Mondragon producer cooperatives formed between 1956 and 1986 only five "failed" within that period (Whyte and Whyte, 1991). Of these, two elected to convert to conventional capitalist firms and one disbanded voluntarily. In other words, only two were driven to bankruptcy. This amazing run was due in part to financial crisis intervention by Caja Laboral and the careful product and market research of the bank's Entrepreneurial Division prior to the start up of new firms. Finally, the history of the Mondragon cooperative group has known but a single labor dispute, and this occurred when the original and largest firm with 3,240 members at the time could not assimilate a large number of new workers smoothly enough to avoid conflicts over wage grade determination (Whyte and Whyte, 1991). After this incidence, a previous ban on unions, which may have aggravated the labor dispute, was lifted, but the presence of unions in the cooperatives has since remained insignificant. Also, firms have since been limited to about 500 members, perceived to be a rough maximum for effective intra-firm communication and solidarity.

It should be noted that another perhaps even more important advantage of the size restriction is the enhanced identification of employees with their firms in a financial sense. The larger an employee ownership company, whether stock-base or cooperative, the smaller the impact by individuals upon corporate performance and thereby also personal equity holdings and profit distributions. As a motivational force, employee ownership dwindles and can become trivial. Conversely, in small employee ownership companies individual influence upon corporate performance and hence personal wealth remains meaningful.

The singularity of Mondragon

The Mondragon experiment is a rare achievement in the realm of corporate organization and performance. Yet despite its humble beginnings with minimal capital requirements and its obvious benefits for the local community, the Mondragon system has not been duplicated. In fact, very few if any well-conceived attempts have ever been made. Mondragon's singularity has somewhat discredited it among development experts. But those who dismiss Mondragon as an interesting but irrelevant anomaly might do well to consider socialist central planning, which was a scheme adopted by many countries around the world but essentially failed everywhere. Broad application is in itself hardly grounds for legitimacy. Conversely, the Mondragon system is not illegitimate simply by virtue of its isolation and uniqueness. It must be borne in mind that the Mondragon experiment has been successful and quite spectacularly so at that! Here is a system that works. That it has not spread should not be attributed to intrinsic flaw.

Some would claim that while full of promise in its early stages the Mondragon experiment is beginning to falter. They point to the pay grade ratio which has increased from 1:3 in the original firms to a maximum of 1:6 today. However, as mentioned above, the Mondragon pay grade ratio compares the wages of the lowest paid member workers rather than average workers with those of top executives, and the typical such pay grade ratio among Mondragon firms is only 1:4.5. In contrast, average Japanese and German pay grade ratios for average workers and chief executives for 1991 were 1:17 and 1:23 respectively (Rankin, 1991). In the U.S., mean pay grade ratios rose from 1:12 in 1960 to 1:93 in 1988 (Cooper and Friedman, 1991). By 1990 they had shot as high as 1:150 (Rankin, 1991). Even with the need to attract top management talent and engage medical professionals for its health care facilities, Mondragon has been able to keep its pay grade ratios remarkably low.

Other critics point to the fact that growth in terms of employment creation has largely plateaued in Mondragon since the mid-1980s. Over the past eight years or so the corporate group has only been able to add about three thousand new employees to its work force (Goitia Zubia, pers. comm., 1993). In Spain, cooperative banks are rather seriously restricted in the types of investments they can make. The investment horizon of Mondragon's central bank is essentially limited to enterprises within the group. This alone would seem to impose a potentially insurmountable drag upon growth. Be that as it may, Mondragon has sustained a modest expansion despite Spain's prolonged severe recession with over 20% unemployment. Compared to Spain's conventional firms and corporate groups Mondragon's growth rate is probably quite high. When all other vehicles are sliding downhill that which continues slowly to climb is exceptional. Moreover, at Mondragon labor and management seem to share a common anxiety over the uncertainty during Spain's assimilation into the European Union and the Union's transformation into one large giant market free of internal boundaries. This anxiety is the basis of the group's current strategy to freeze growth (Goitia Zubia, pers. comm., 1993). In other words, the plateau is in part intentional.

In order to better position itself for the heightened competitiveness of Spain's new business environment, the Mondragon group recently reorganized itself into product- and service-related divisions, dissolving the old geographically-based configuration (Goitia Zubia, pers. comm., 1993; Moye, 1992). The bank now is also permitted to invest in outside firms. As part of retooling, 12 financially precarious enterprises have been allowed to close or merge with other, more robust firms. Still, Mondragon's business failure rate remains exceptionally low (less than 10%), and since no jobs have been sacrificed, the decrease in total number of firms is not an indicator of economic decline. On the contrary, it may serve as a possible indicator of future potential since this reduction could well make the group as a whole leaner and thereby more competitive.

From a somewhat different perspective, despite the restrictions of both Spanish law and Mondragon's own constitution limiting non-member employees to 10% of the work force (Whyte and Whyte, 1991), the proportion of non-member employees has grown to about 14% through use of the loophole of short-term contracts (Moye, 1992). Clearly, the recourse to temporary labor is another coping strategy for the uncertain transition period. Also, the Mondragon group is seeking to purchase portions of non-employee ownership Spanish businesses (Martin, pers. comm., 1993), possibly in an attempt to circumvent the investment disadvantages of its bank. Both instances point to a weakening of the group's dedication to the principles of cooperativism, and this "spiritual" erosion may offer deeper insight into the nature of long-term threats to competitiveness than negative business indicators (ibid). Consider a survey study undertaken in the early 1980s, which tested the proposition that Mondragon's solidarity is due to ethnic uniformity (Bradley and Gelb, 1982). About one fifth of the cooperators described themselves as non-Basque, and for most members the initial draw to the Mondragon cooperatives was the job security rather than ethnic uniformity. This is hardly surprising given the rather bleak regional economic landscape and sparse local employment opportunities. However, once employed for some time Mondragon employee-owners tended to change in their personal outlook: cooperativism itself became the most attractive feature of their jobs. This unifying value may be the basis of solidarity, so to adulterate it could conceivably be damaging in a fundamental way.

A cooperative community ethos may be foundational to the Mondragon experiment. The only two cases in which cooperators voted to convert their enterprises into conventional capitalist firms both occurred in areas without a strong cooperative tradition (Whyte and Whyte, 1991). In contrast, the main group of Mondragon cooperatives lies in the heart of the Basque country, where cooperatives have been in operation since at least 1870 (ibid). Indeed, the Mondragon experiment has an indirect regional predecessor of sorts in Sociedad Anonima Cooperativa Mercantil y de Produccion de Armas de Fuego, a large cooperative firearms manufacturer and distributor that thrived until the beginning of the civil war in 1936 (ibid). Therefore, regional predisposition may be critical to the emulation of the Mondragon model. With regards to this aspect at least, venues such as rural China with its strong and ongoing tradition in cooperativism would seem to offer fertile grounds for Mondragon-style initiatives.

It may also be that barriers to the spread of the Mondragon model may be found in impediments of a legal nature. The initial rapid growth of Caja Laboral was almost certainly due in large part to an unusual law allowing workers' banks to offer half a percent higher interest than conventional banks (Whyte and Whyte, 1991). This or similar financial advantage would clearly be important to Mondragon-style initiatives in other areas. In China, the credit crisis makes official approval for new banks extremely difficult to obtain, but precisely because of the uncompetitiveness of state-affiliated banks, independent banks that can be chartered do enjoy a business advantage. One case in point is Hui Tong Urban Cooperative Bank of Chengdu, Sichuan, which increased its deposits and lending volume by over 100% every year for its first three years (Tam, 1992)[4]. In Russia, the relative void of credit regulations has prompted a plethora of bank start-ups (Ickes, 1993), and the predisposition of Russian enterprises to inter-firm ties and dependencies[5] has caused some economic reformers to look to the Japanese kereitsu as a model corporate superstructure (Galuszka, Kranz and Rossant, 1993). One consortium of enterprises, Rosshelf, has coalesced to develop Barents Sea gas fields (ibid), but whether Rosshelf forms a core of support institutions to become something akin to a Mondragon-style corporate group remains to be seen.

Simple intimidation may be a psychological impediment to the spread of the Spanish system. People seeking a model to emulate look to Mondragon and find a large, highly successful and extremely intricate corporate group. The simplicity of the original initiative and indeed of the concept at the heart of the present complex are buried in history, intangible and therefore invisible. Far less daunting to look to more modest but still advanced models, such as many of the American ESOPs. This seems to be what is happening around the world.

But even as this trend begins to gather momentum, the universal need to overcome growth constraints is giving rise to new types of elaborate superstructure. As powerful as they have proven in the past, highly structured corporate groups may soon be antiquated by the increasing fluidity of the world market. Loosely bound networks of allied firms are much smaller, more narrowly focused in competence and able to adapt quickly to changing circumstances within their market niches (Quinn, 1992). Ultimate flexibility in this respect may be found in the "virtual" corporate groups of the West, which rely on electronic linkages for their temporary cohesion (Davidow and Malone, 1993), and the culturally unified ad hoc corporate consortia of the greater China region (Barnathan, Hsinchu, Einhorn, and Nakarmi, 1992), which encompasses mainland China, Taiwan, Hong Kong, Macau and Singapore. In both instances, firms collaborate to exploit specific market opportunities but form no rigid or permanent ties. Someday, Chinese firms, which are given to inter-firm dependencies in a similar way as their Russian counterparts (Walder, 1989), may become masters at ephemeral organization. Should amorphism become the dominant "superstructure" model for employee ownership corporate groups then Mondragon will likely remain a singularity until at least the next metamorphoses of the world market.

The lasting significance of Mondragon

Any successful enterprise, regardless of whether it is based on employee ownership or conventional capitalism, eventually reaches its natural financial limits to expansion. If an enterprise wishes to overcome these limits in order to realize greater growth in terms of job creation and then to sustain these positions over the long term, it must identify its major constraints, analyze the nature of these contraints and devise effective strategies for eliminating them. A winning strategy may take the form of a central bank or it can be something else entirely, such as a temporary corporate alliance. Mondragon's greatest significance lies in the fact that with each new constraint, different and novel strategies were devised by individual members to cope with it. The evolution of Mondragon's impressive corporate superstructure offers a saga of personal initiative.

When in the late 1950s the original few cooperatives ran up against the barrier of insufficient investment capital, the parish priest and local high school curate, who had tutored Mondragon's five founders as adolescents on the principles of cooperativism, persistently pursued the idea of a bank with his reluctant former pupils (Whyte and Whyte, 1991). At last, they agreed to charter one (headquartered in a single small office and staffed by two clerks) more to humor their eccentric old mentor than out of personal conviction or vision. As it turned out, the bank grew by leaps and bounds[6], and the capital amassed solved Mondragon's growth problems for the next two decades.

In 1965 a shop operations instructor of Escuela Politecnica Profesional began to discuss with his peers possibilities for industrial research (Whyte and Whyte, 1991). Production improvement projects commenced in 1966, and two years later the former shop instructor led a team to Paris to learn the organization and management of major research institutes (ibid). In 1972 he opened an automation research laboratory in Escuela Politecnica, and in 1974, a full research institute was proposed. Don Jose Maria advocated this idea, also against the opposition of Mondragon's leadership, but this same time, the parish priest made no direct personal contribution to the effort, obviously because the need for such intervention had already begun to diminish as the vision of others intensified. The shop instructor's laboratory grew into Ikerlan, which gained for the cooperative group a measure of technological autonomy (Whyte and Whyte, 1991).

While genius is a factor that cannot be accounted for, works of genius may be somewhat "tangible". The Westward voyage of Columbus was unthinkable before he did it; then it became daunting but repeatable. So too with producer cooperatives and central workers' banks, research institutes and other innovative initiatives. Don Jose Maria had his original vision, and the later Mondragon cooperators had the example of Don Jose Maria. Since the formation of Ikerlan, new pioneers have stepped forward to instigate limited trials in Volvo-style work teams (Whyte and Whyte, 1991) and the current reorganization of the entire corporate group into product- and service-related divisions (Moye, 1992), the better to facilitate ad hoc inter-firm collaborations for the exploitation of ephemeral market opportunities. While the former experiment has proved somewhat bankrupt (even though there is no apparent reason why the unified small- and medium- firms of Mondragon should not be well suited to team production systems) and the latter is still too fresh to critique, they do demonstrate that despite its success and power the corporate group continues to anticipate future demands and implement fundamental adjustments. Problems are dealt with before they arise. As Americans are fond of noting with respect to their society, Mondragon exhibits the capacity to "reinvent" itself. Moreover, this institutional foresight is possible because the Mondragon system permits exceptional individuals, regardless of formal rank, to exercise leadership. This Spanish phenomenon deserves close attention not necessarily for the details of its historical growth advantages or original corporate superstructure, but for its underlying principles of democratic management, which allows the group to derive foresight, creativity and courage from the pool of its entire membership. It is in the realization of individual potential that Mondragon enjoys an advantage in fostering change at the corporate superstructure level.

Dr. George Tseo is an Associate Professor at the Pennsylvania State University, USA.

Footnotes

1. SRC was initially bought out by 13 of its managers. Stock shares were subsequently sold to employees (Stack, 1992).

2. When outside investors gain controlling interests in a firm, 25% of non-voting shares are required to go to workers, and they are given the option of purchasing an additional 10% at 30% discount from the nominal value and with payment spread over three years (Blasi, 1993). Managers alone may buy 5% at the nominal value (ibid). A third option allows workers of firms close to bankruptcy to acquire 20% of voting shares at substantial discount if they can take responsibility for restructuring to avert closure (ibid).

3. As a result the average Chilean worker has retirement holdings with 40% higher value than before and total assets of four times greater value

than his annual wages (Ratan, 1995). By comparison the average American worker has assets of approximately equivalent value as his annual salary. The broad-based employee equity ownership program has solved, for the time being at least, the national social benefits problem. It has also provided Chile with investment capital to fuel its economic growth, which is currently about 8% per anum. Argentina and five other Latin American countries as well as Australia and Sweden are investigating the feasibility of adopting the Chilean system.

4. Started in 1985 by a group of academics who hoped to learn about finance through practice, Hui Tong's deposits and loans grew from 2.17 and 2.33 million yuan in 1985 respectively to 31.9 and 30.8 million yuan in 1988 (Tam, 1992). In terms of efficiency, Hui Tong's rate of return to equity ratio of 1.67 is clearly superior to the average values of 1.03 and 0.22 attained by the urban credit coops set up by the Industrial and Commercial Bank of China in Beijing and Sichuan respectively (ibid).

5. Before the Soviet collapse, state enterprises nurtured mutually obligatory relationships in order to secure production commodities and investment funds during times that the command economy caused artificial shortages (Berliner, 1957).

6. Caja Laboral Popular opened in 1959 with a pair of workers (Whyte and Whyte, 1991), but by 1980 operated a branch in every Basque town with a cumulative total of 300,000 deposit accounts (Flessati, 1980). Revenues of 103 million pesetas in 1968 (approximately 1.5 million dollars) multiplied nearly forty-nine fold to 5,038 million pesetas (approximately 72 million dollars) within eleven years (Thomas and Logan, 1982).

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Researchers Referenced

American Capital Strategies, Suite 860, 3 Bethesda Metro Center, Bethesda, Maryland 20814
Chen Yan-shun, Assistant Director, Accountancy Department, Beijing Orient Electronics Group Co., Ltd., No. 10 Jiu Xian Qiao Rd., Beijing 100016, People's Republic of China
Du Ying, Actng Director, Executing Office for Rural Reform Experimental Areas, Ministry of Agriculture, No. 9, Xihuangchenggen, Nanjie, Beijing 100032, People's Republic of China
Jose Antonio Goitia Zubia, Director for International Communications, OTALORA (Mondragon's Management Research and Training Center), B.º Aozaraza s/n, 20550 ARETXABALETA, Gipuzkoa, Spain
Jia Heting, Deputy Department Chief, State Commission for Restructuing Economic Systems, 22 Xi An Men Street, Beijing 100017, People's Republic of China
Terence Henry Martin, Ph.D. Candidate, Department of Economics, Yale University
Sun Hua Chu, Economist, All-China Federation of Trade Unions, 10 Fuxingmenwai Street, Beijing 100865, People's Republic of China
Yuan Zhenguan, Professor of Ownership, China Lecture Society of Science and Technology, China Association of Science and Technology, 54 Sanlihe Road, Beijing 100863, People's Republic of China
Andy Veje, Vice President, The Ralph Parsons Corp., 100 W. Walnust St., Pasadena, CA 91124