

HISTORY AND THEORY OF COOPERATIVES¹

Senate Submission

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INTRODUCTION

Cooperatives have evolved significantly over the past two hundred years and are of increasing importance to economies and societies throughout the world irrespective of level of socio-economic development. Yet, cooperatives, generally speaking, are peripheral to contemporary scholarly analyses. Moreover, they are treating as inefficient and relatively ineffective organizational types whose presence is typically transient and only of some importance in times of crises and to marginal socio-economic participants. Even those with a sympathetic eye consider cooperatives to be of marginal importance. It is therefore of some consequence to discuss the significance of cooperatives over historical time and the extent to which cooperatives are actually both efficient and effective economically and socially.

It is important to note, that in the Australian context, preliminary estimates suggest that co-ops generate perhaps between 5 to 10 percent of GDP. Much more research needs to be invested to better understand the role of co-ops in Australia (Business Council of Co-operatives and Mutuals 2015). Methodologies exist to generate fairly accurate estimates for the co-op's percentage share of GDP and employment (see for example, Altman and Udy 2013). But we already know that co-ops are quite important (and successful) in the financial, agricultural, and retail sector.

Contemporary economic theory has played a dominant role in assessing and evaluating cooperatives—typically in a negative light. (Hill 2000; Kalmi 2007). Nevertheless, alternative theoretical lenses provide insight as to the cooperative advantage in different economic sectors and why this advantage is not always realized or exploited. In fact, the evidence is overwhelming

¹ This document builds upon Altman (2009).

that cooperatives can be potentially much more economically efficient than their non-cooperative counterparts and can represent important dynamic components of contemporary competitive market economies (Altman 2006; Bonin, Jones, Putterman 1993; Dow 2003; Doucouliagas 1995). This is of significance given that cooperatives provide both efficient and more equitable (and fairer) forms of market production and can often serve as efficient and effective alternatives to certain forms of government ownership (such as utilities).

DEFINITION

In general, a cooperative is comprised of a voluntary network of individuals who own or control a business that distributes benefits on the basis of use or ownership where ownership is largely weighted equally across individual members. Benefits are generated by, for example, a share of surplus or profits, improved working conditions and benefits, lower prices, higher quality of product, product type and variety that better needs members preferences, and better access to credit. Members control the cooperative on the basis of one member, one vote with a guaranteed platform to exercise voice. Members invest in the cooperative and thus have a financial stake in the organization. Unlike the typical private business, in the cooperative financial risk is more narrowly distributed amongst users or workers. Whereas in the private business ownership and financial risk need not fall on the shoulders of users or workers. In some jurisdictions, the risks to cooperative owners are restricted by limited liability protection afforded by the law.

There are various types of cooperative which dominate, least important of which, quantitatively at least, is the workers cooperative. It is only in the workers cooperative, however, that the overall position of worker is definitively different from what exists in the traditional private sector firm. However, in the emerging multi-stakeholder cooperative it is possible for non-worker cooperative to incorporate significant components of the substance of worker cooperatives into their corpus (see below).

1. *Workers cooperative*: Such a cooperative is owned and controlled by the workers through the standard one member, one vote platform. Many such cooperatives are run, on a day-to-day basis, by managers and a board of directors. But worker-owners have the ultimate say as to how the firm is managed over the long term and are characterized by a much less hierarchical system of management than the standard narrowly owned firm. Workers cooperatives are configured to meet the interest of workers first, as opposed to maximizing profits or share values in the short run. Maintaining and growing employment is often a binding constraint of a workers cooperative. Profits or surplus can be dispersed across members, based on memberships or hours worked, or invested in to grow the firm or to make it more competitive. Like traditional firms, worker cooperatives

must be concerned with its production costs if they are to survive and flourish in the market place. Workers cooperatives are found largely in the processing and service sectors, albeit manufacturing is not unimportant.

2. *Consumer cooperative*: This is the most important type of cooperative in terms of membership. Consumer cooperatives are sometimes referred to as retail cooperatives. Such cooperatives are quite important in the retailing of food and clothing. Members own the cooperatives and control this cooperative through the one member, one vote platform. However, day-day management can and often does take place as it would in traditional firms, and management can be quite hierarchical in structure, especially when the cooperative is large. In addition, management-labor relations are often similar to that of the tradition firm. In theory, a key distinguishing feature of consumer cooperatives is that they should be configured to best meet the preferences of their member-owners in terms of product type, quality and price. Moreover, the objective of the cooperative is not to maximize the difference between unit cost and price, but rather to charge the lowest price possible, given quality and the investment requirements of the cooperative. But consumer cooperatives typically charge the market price for their product. However, any surplus accrued is supposed to be directed towards investment purposes, dispersed amongst members, or invested in socially beneficial projects as decided upon by members (typically by management).

It is important to re-iterate that a key difference between a traditional retailer and the cooperative is the over-riding importance of the member-owner and the fact that in a cooperative ownership is weighted on the basis of the individual. Thus, no one individual can have a greater ownership or membership share than another. Additionally, consumer cooperatives, especially the smaller ones, have been established in localities and product lines where private retailers have deemed it too risky and unprofitable. When consumer cooperatives have better information on preferences and markets, given asymmetric information, they can survive and even prosper in domain where the traditional retailer cannot.

3. *Credit Union*: A credit union is a type of consumer cooperative that specializes in the money market and it is, along with the food and clothing retail cooperative, among the largest in terms of membership. A credit union is owned and controlled on the base of one person, one vote, and is typically locally owned. But the credit union is managed on a day-to-day basis by an elected board and professional managers. In additional, management-labor relation can and often maps that of the traditional financial institution.

Credit unions initially developed to provide financial resources to individuals and firms that found it difficult to secure these in the traditional financial sector. Credit unions have evolved into financial institutions that cater the needs of individuals across all income levels and firms of different sizes. This allows credit unions to spread the risk of their financial portfolios. In addition, contemporary local credit unions are often part of regional and national credit unions networks, allowing them and their members to take advantage of economies of scale and scope as can traditional financial institutions.

A key distinguishing feature of a credit union is the capacity of members to determine the direction of its local credit union. Profits or surplus income be dispersed to members, invested in the firm, or in social projects. Moreover, the credit union has the capacity to exploit local knowledge (asymmetric information) so as to serve individuals and firms and their particular needs which traditional financial institutions find too risky. But just like traditional financial institutions, credit unions must be carefully managed, otherwise a sufficient number of bad loans can force a credit union into bankruptcy.

4. *Supply and purchasing cooperative*: This type of cooperative is quite important in agriculture where farmers establish a cooperative to obtain goods and services required for their business or for personal use at lower prices than would be possible if they go it alone. Thus farmers can take advantage of economies of scale and scope that are afforded to larger corporate farms. But the management of such a cooperative can mimic that of the traditional firm.
5. *Marketing cooperative*: This type of cooperative aligns the interests of producers with regards to marketing output to retailers or wholesalers. A marketing cooperative can also store, process, and package output prior sale. This allows farmers, for example, to take advantage of economies of scale and scope in storage and production, increasing their net income over what it might otherwise be. It also serves to increase the bargaining and marketing power of farmers. In addition, a marketing cooperative can help stabilize farmers' income through its inventory capacity, providing farmers with a relatively stable income as marketing prices fluctuate. As with other cooperatives, a marketing cooperative must pay attention of efficiency considerations as well as maintaining the flexibility to vary the prices paid and surplus (and losses) disbursed to member farmers as markets re-structure over time. Otherwise, it risks bankruptcy.
6. *New Generation Cooperative*: This type of cooperative is also referred to as a value added or new wave cooperative, although cooperatives of old typically added value to

their output. The express purpose of this cooperative is to transform raw material inputs into processed output, such as cranberries into juice or wheat into flour. Typically found in agriculture, farmers are owner-members who supply the raw material for processing, hoping to reap additional net income from value added activities. Like traditional cooperatives, the New Generation Cooperative, is own-member controlled. But unlike most traditional cooperatives, the new wave cooperative's membership is restricted to those with the means and the willingness to provide substantial equity capital. This provides the cooperative with the necessary finances to build a competitive value added enterprise and provide those with an equity stake in the cooperative with shares (typically) in proportion to the equity supplied. The farmer is obliged and has the right to supply the cooperative on the basis of share value. And shares can be sold at market value, which can be greater or less than the purchase or equity price, when the farmer or other supplier wishes to dissociate him or herself from the cooperative.

7. *Multi-Stakeholder Cooperative*: This cooperative has two or more groups of members that may include, workers, consumers, producers, investors, community and/or government. Such a cooperative has the potential of aggregating the interests of different individuals and groups of individuals within one cooperative thereby making them all stakeholders of a particular cooperative. For example, a consumer cooperative by provided a membership and ownership stake to workers transforms a traditional consumer cooperative to one where workers interests gain significant representation. The consumer cooperative develops characteristics of a worker cooperative. This can have significant efficiency benefits to the cooperative. Any cooperative that brings in government, community or private sector representation strengthens the stakeholder and knowledge base of the cooperative as well as spreading risks without the core cooperative members losing control.
8. *Social Cooperative*: This is a particular type of multi-stakeholder cooperative that brings together providers and users of social services such as daycare, health services, housing and job training. It provides services that private sector firms will not or cannot provide. Such cooperatives often survive on the basis of subsidies, donations, and voluntary labor. But very often, non-cooperative providers of these services survive on the basis of government support as well.

HISTORICAL BACKGROUND

The Rochdale Principles

The cooperative movement is strictly defined and relates very closely to democratic forms of governance with regards to members. The cooperative is not simply a group of individuals who cooperate in particular economic activities. For cooperation of this type can take place under coercive forms of governance, ranging from serfdom to slavery to the state sponsored collectives of Communist China, the Soviet Union, and Cuba. Wage labor in democratic society also requires cooperation amongst the economic actors. But a cooperative requires much more than mere cooperation, even when the latter is relatively freely undertaken.

The modern cooperative movement aspires to a set of principles first clearly and coherently articulated by members of the Rochdale consumer cooperative, founded by twenty-eight weavers in Rochdale, England, at a time when worker and consumer rights were relatively limited. Consumer cooperatives received legal sanction in England only in 1852. The original Rochdale Principles defining cooperative organizations are (Birchall 1997; International Co-operative Alliance 2008; MacPherson 1996; Thompson 1994).

1. Democratic control (One Member, One Vote).
2. Open membership.
3. Limited interest on capital.
4. Distribution of surplus in proportion to a member's contribution to the society.
5. Cash trading only (no use of credit).
6. Providing for the education of members in co-operative principles.
7. Political and religious neutrality.

For the International Co-operative Alliance (ICA), the official governing body of cooperatives, the following four of the Rochdale principles are central to the governance of member organizations:

1. Open Membership.
2. Democratic Control (One Man, One Vote).
3. Distribution of the surplus to the members in proportion to their transactions.
4. Limited Interest on Capital.

The following four principles are deemed important but necessary to membership in the ICA:

1. Political and Religious Neutrality.
2. Cash Trading only.
3. Promotion of Education.

The fact of the matter is that many cooperatives have very clear political and religious agendas. Most use credit as a means of sale. The latter is critical in contemporary market economies and is often the preferred means of payment. Also, a plethora of cooperatives invest little in the domain

of education. Finally, some cooperative issue shares to raise capital—but these shares do not provide ownership rights over the cooperative.

Kibbutzim and Mondragon Cooperatives

Two important examples of national cooperative movements are the Kibbutzim of Israel (first established in 1910) and the Mondragon Cooperative Association founded in the Basque country of Spain in the 1950s. The Kibbutz Movement of Israel is the largest cooperative grouping in the world. By the end of the twentieth century there were 270 of these collective settlements with a population of 120,000. These settlements are community owned and run and represent a mélange of worker, consumer, producer, and financial cooperatives. Initially, largely agricultural in orientation, manufacturing and tourism now plays a significant role in the Kibbutz economy as Kibbutzim adjust to increasing competitive pressures. Most cooperatives settlements are small (they vary from about 50 to over 2,000), but there is significant cooperation amongst these (Communal Studies Association 2008; Avrahami 2002).

The Mondragon Cooperative Association of Spain, is comprised of over 160 companies operating in manufacturing, distribution, and finance. Member companies employed almost 80,000 people and the Mondragon group of companies was the seventh largest in Spain in 2006. But at least 20 percent of Mondragon's employees are non-members (Mondragon Corporacion Cooperativa 2006; Whyte 1991). The Kibbutz movement also now employs a large number of non-members. For the Kibbutzim, this has been to large extent fueled by severe labor shortages—the inability to attract an adequate supply of labor to meet on-going demand. Both of these longstanding cooperative movements thus employ many individuals to whom the principles of the cooperative movement do not necessarily apply. Both these movements have had to adjust to ever-changing and increasing market pressure, meeting with much success.

International Perspectives

There exist no precise estimates on the importance of cooperatives in the new millennium (International Co-operative Alliance; Kalmi 2007; Global300.coop 2007; United Nations 2008a, 2008b). But the United Nations guesstimates that the 'cooperative movement' had over 800 million members at the beginning of the new millennium and provided for about 100 million jobs. In addition, over the past 150 years cooperatives have spread to over 100 countries. Cooperatives are of importance in both developed and less developed economies. Moreover, cooperatives are of significance in both the more free market oriented economies, such as Canada, the United Kingdom, and the United States, as well as in Australia and New Zealand and the more statist market economies of Continental Europe.

About half of the world's agricultural output is marketed by cooperatives, which speaks to the significance of marketing cooperatives. Overall, it is in the agricultural sector that cooperatives of various types remain dominant. In the financial sector, credit unions encompass about 120 million members in 87 countries. Especially in poor countries, cooperatives provide important micro-credit services. But in developed economies serve to make financial markets more competitive. Consumer cooperatives continue play an important role worldwide, with its importance varying across countries. Health care cooperatives service about 100 million people in over 50 countries. Electricity provisioning cooperatives have become important. For example, in the United States, such cooperatives service over 30 million people. Least important in terms of quantitative significance are worker's cooperatives. Only a small percentage of the 100 million individuals employed by cooperatives are controlled by the workers themselves. Thus, consumer, producer, or financial cooperatives need not be managed in a manner that benefits employees where the latter's (non-members') interest conflicts with that of cooperative member-owners.

The International Co-operative Alliance (ICA), the formal governing body of cooperatives, referring to the United Nations, also maintains that cooperatives made secure the livelihood of approximately 3 billion people across the globe or about half of the world's population. But this reference is quite nebulous in meaning, but suggests indirect economic importance of cooperatives through its multiple linkages. Survey evidence strongly supports the view that cooperatives serve to reduce poverty amongst cooperative members as well as amongst non-members and the same can be said with regards to reducing gender inequality. The evidence also suggests that cooperatives can provide a means of generating income and wealth well above any particular measures of poverty.

KEY ISSUES

Economics and Cooperatives

Contemporary economic theory has pays little heed to the cooperative, especially worker and consumer cooperatives. Whereas, supply and marketing cooperatives are treated as contributors to monopolistic pricing, therefore contributing to economic inefficiency (allocative inefficiency) and the misallocation of resources. At best, cooperatives as an organizational type, are looked upon as a possible solution to economic dilemmas faced by the economically marginalized members of society. The cooperative is not regarded as a source of economic efficiency and possible contributor to material welfare (Bonin, Jones, Putterman 1993; Dow 2003; Hill 2000; Kalmi 2007). But this is a product of the behavioral assumptions embedded in the theory.

Although cooperatives are not dominant, their quantitative importance in most countries in both marginal and mainstream sectors, and their profitability and relatively high levels of

productivity compared to their privately owned counterparts suggests that cooperative economic organizations must be doing something right to have maintained a significant presence in an increasingly competitive global economy. On the other hand, it is important to understand why cooperative are not dominant if they are economically efficient.

Theory and Workers Cooperatives

How does one explain the economic success of workers cooperatives? Conventional theory assumes that no such success is possible given that cooperatives are not obliged to invest profits (focusing on employment and workers' income) and are too egalitarian to generate economically efficient incentives and to engage the employment of superior management. But there exists a cooperative advantage in the worker cooperative that lies in its capacity to increase the quantity and quality of effort inputs into the 'production process,' thereby producing higher levels of output and a superior quality of output (Altman 2002, 2006; McCain 2008). This can also be referred to as the x-efficiency effect (Altman 2001; Leibenstein 1966) of cooperative organization. In the cooperative, worker owners and owner managers have the incentive to work harder and smarter—a possibility assumed away in the traditional modeling of the firm. Conventional theory assumes that the manner in which a firm is organized does not impact the extent of x-efficiency. Moreover, where workers cooperative focus on improving benefits and working conditions whilst maintaining and even growing employment they are incentivized into adopting and developing technologies that make them competitive. Workers cooperatives can, therefore, be more costly to operate than traditional firms, especially low wage traditional firms, but they can also be much more productive, such that their unit costs and profits can be the same as that of the traditional firm.

The cooperative productivity advantage countervails the increased costs of operating the cooperative. Thus in the workers cooperatives workers would be much better off without their benefits causing their firm to become uncompetitive. Workers cooperatives can yield competitive outcomes without driving out of the market non-cooperative traditional firms. Such workers cooperative can function and prosper in mainstream economic sectors, even in highly competitive environments. Moreover, when workers are also owners, there is much less incentive for workers to quit. Reducing quite rates and thus turnover rates increases labor productivity and reduces production costs by maintaining the most productive workers and reducing average training costs. Overall, workers cooperative can generate higher levels of material welfare than the traditional firm.

SKIP THIS IS IT'S TOO TECHNICAL OR BORING

This argument is illustrated in Figure 1—see end of document (based on Altman 2001, 2002, 2006). As traditional analysis would have it, workers cooperatives incur higher costs (such as higher levels of labor benefits) and this yields higher unit or average production costs. This is given by line segment am which relates increasing cooperative related costs to average production costs. In the traditional model, increasing labor benefits, for example, have no impact on labor productivity. More realistically, in a more democratic firm wherein labor benefits also increase, labor productivity increases, illustrated by ah. Therefore, in the cooperative firm, the level of x-efficiency increases as incentives improve. The cooperative firm induces firm members into becoming more productive. To the extent that such productivity increases offset the increased cooperative associated costs, average or unit production costs need not change as labor costs increase, illustrated by line segment ag. Eventually, the level of x-efficiency cannot be sufficiently increased to offset increasing labor costs, at points b and h, yielding increased average costs. This induces technological change, illustrated by a shift in the cost curve from agc to agd, which serves to further offset cooperative related costs when x-efficiency is at a maximum. Lower wage and higher turnover traditional firms need not be more competitive than cooperative firms and the more productive cooperative firms need not have the capacity to drive out the less productive traditional firms. Given the superior incentive system of the workers cooperative there is no good theoretical reason to presume that workers cooperatives cannot be both competitive on the margin and prosperous. On the other hand, this does not imply that workers cooperatives can be expected to dominate the economy.

OKAY, NOW PLEASE CONTINUE ON

The workers cooperative represents only one ‘extreme’ alternative to hierarchical organizational types. Privately owned participatory firms (which allows for some workers’ ownership of firm assets and effective voice) represent another alternative, one where workers need not risk their capital nor bear the risks entailed in ownership (Altman 2002, Gordon 1998). Also, they need not invest the time and effort that might be required at the management and corporate decision-making level in a worker cooperative. This firm type overlaps with the multi-stakeholder cooperative. Given the possibility and option of a privately owned participatory firm, many workers might choose the latter. Moreover, workers might choose traditional hierarchical firms given the risks and effort required to establish and maintain a workers cooperative. Also, establishing workers cooperatives can be problematic if financing is difficult to come given that financiers have limited say on corporate governance in traditional cooperatives. This constraint can be obviated in multi-stakeholder cooperatives. In addition, establishing workers cooperatives suffers from coordination problems—it is difficult and costly to coordinate the efforts of

individuals to establish a cooperative. This issue is somewhat mitigated by regional and national cooperative federations. Finally, misinformation about the design and operation of worker cooperatives can negatively affect preferences for cooperatives. *Here, there is a problem of poor and misleading education about the efficiency and effectiveness of cooperative as a competitive organizational entity.*

For these reasons, workers cooperatives are often established in the wake of crisis wherein the traditional firm is on the verge of closure. In the absence of a workers cooperative unemployment, the breakdown of social networks, and less preferred jobs becomes the default. Such cooperatives can succeed if the new incentive environment increases productivity and encourages technological change wherein the traditional firm was economically inefficient and resistant to improved technology. Cooperatives can also survive on the basis of low wages, where worker-owners willingly sacrifice material benefits so as to remain competitive and thereby secure their employment. Competing on this basis in the short run provides such a cooperative with the capacity to search for efficiencies in production that will allow it to compete on the basis higher wages and improved working conditions in the longer term. Such a capacity does not typically exist in the traditional hierarchical firm given mistrust, asymmetric information, and different preferences between workers, owners and managers.

Consumer Cooperatives

Establishing consumer cooperatives and other types of non-worker cooperatives face some of the same constraints as do worker cooperatives, but not those related to the risks and time that workers must absorb to establish and operate a workers cooperative. However, consumer cooperatives, have met with considerable success. But they need not be organized in terms of non-hierarchical forms of management and can remain competitive on the basis of low wages and poor working conditions, matching the immediate labor costs of their non-cooperative counterparts. In this case, consumer cooperatives need not generate superior material welfare outcomes its workforce, although they should generate material welfare gains to coop members in terms of price and quality and product type. *However, through multi-stakeholder organizational setups, consumer cooperatives can overlap with more democratic and less hierarchical working environments, yielding both pecuniary and non-pecuniary benefits to their workforce.*

The cooperative advantage of consumer cooperatives lays in its capacity to better meet the preferences of their members than privately owned concerns, thus enhancing members' welfare. For example, the cooperative might be better able to supply member consumers with the right product mix and quality and, in relatively non-competitive markets where consumers have little bargaining power, provide preferred bundles of goods and services at lower prices; it might be

able to overcome information asymmetries in the credit market providing loans to individuals unable secure such loans from private banks; and it might be able to secure higher prices for members of marketing cooperatives by improving their bargaining power relative to purchasing conglomerates with well established bargaining power.

Even when consumer cooperatives can do no better than privately owned concerns in terms of commodity supply and price, they can enhance members' welfare if the cooperative generates a sense of belonging or community (social cohesion) amongst members (Fairbairn 2003). However, such social cohesion and sense of identity with the coop provides the cooperative with the 'protection' from market forces allowing it charge higher prices and supply lower quality products. Member-owners might be willing to pay higher prices, up to a point, simply because a product is sold by their cooperative. But such behavior would undermine the economic and social viability of the cooperative (Altman 2015b; Karaphillis, Duguid and Lake 2015). Nevertheless, there is nothing intrinsic in the cooperative organizational type that implies that this must be the case. Cooperatives can produce and supply quality goods and services at competitive prices. Also, the extent of social cohesion can diminish when consumer cooperatives increase in membership. Each member has less power and voice and more difficulty in having an affect on the decision-making process and outcomes. Less social cohesion and related sense of belonging can undermine the membership base of the cooperative. And the cooperatives success then becomes a function of its capacity to compete with traditional producers and suppliers. Still, cooperatives have the capacity to be highly competitive in this domain.

FUTURE DIRECTIONS

Overall, the cooperative solution can produce higher social-economic welfare levels to members whilst also overcoming significant market failures. In other words, cooperatives and cooperative type organizations can have large positive effects on the economy while at the same time generating significant improvements to the social and spiritual wellbeing to members and even non-members. The non-material and economic benefits are dialectically and positively related. This reality is marginalized in much of the conventional literature. To some extent, whether cooperative solutions are adopted depends upon the preferences of individuals given that cooperatives can be competitive even in extremely competitive environments. Not all workers prefer pure cooperatives. Not all consumers choose consumer cooperatives. Nevertheless, preferences for cooperatives need not be met as a consequence of the dearth of financial resources and organizational capacity. These constraints can be overcome through cooperative networks, credit unions, multi-stakeholder cooperatives, and facilitating legal environments. Market forces, no matter how powerful, do not require and cannot force non-cooperative solutions to socio-

economic problems. Competitive markets and cooperative organizational forms are all quite compatible. *Ceteris paribus*, the case can be made that a world without cooperative is, at a minimum, one that is poorer.

Cooperatives have been forced to engage in dramatic changes in terms of organization, production and markets over historical time. Much success has been achieved as is exemplified by the overall global importance of this democratic organizational type. New forms of cooperatives have been developed where the core value is democratic governance by member-owners; where ownership still adheres to the one person, one vote protocol. These are more flexible cooperatives better able to meet competitive challenges. But cooperative values as articulated in the Rochdale Principles can become less salient as the cooperative grows and the voice of each individual member becomes less effective. Local control becomes critical to maintaining effective voice and social cohesion within the cooperative. Also, democratic governance excludes employees in most cooperatives. A significant iteration of the cooperative is the democratic privately owned firm. Another is the multi-stakeholder cooperative, which strengthens any particular type of cooperative by providing effective voice to individuals and groups contribute who contribute or who can potentially contribute substantively to the cooperative viability and prosperity.

One vital lesson gleaned from the history of cooperatives is that democratic governance within the firm can contribute significantly to socio-economic wellbeing. Another is that education on the cooperative alternative is very thin and often highly misleading. This negatively affects the capacity of cooperatives to growth, with negative consequences for the economy. With higher quality education across sectors, individuals and organizations can make more informed decisions on which organization form works best given the challenges being faced.

REFERENCES AND READINGS

- Altman, M. (2001) *Worker Satisfaction and Economic Performance*. Armonk, New York: M.E. Sharpe Publishers.
- Altman, M. (2002). "Economic Theory, Public Policy and the Challenge of Innovative Work Practices," *Economic and Industrial Democracy: An International Journal* 23: 271-290.
- Altman, M. (2005). "Reconciling Altruistic, Moralistic, and Ethical Behavior with the Rational Economic Agent and Competitive Markets," *Journal of Economic Psychology* 26: 732-757.

- Altman, M. (2006). "Workers Cooperatives as an Alternative Competitive Organizational Form," *Advances in the Economic Analysis of Participatory and Labor-Managed Firms* 9: 213-235.
- Altman, M. (2009). "History and Theory of Cooperatives," in *International Encyclopedia of Civil Society*, edited by Helmut Anheier & Stefan Toepler. New York: Springer.
- Altman, M. and B. Udy (2013) "The Importance of Co-operatives to the New Zealand Economy," Report to the, New Zealand Cooperatives Association.
- Altman, M. (2014). "Are Cooperatives a Viable Business Form? Lessons from Behavioural Economics." In Sonja Novkovic and Tom Webb, eds. *Co-operatives in a Post-Growth Era: Towards Co-operative Economics*. London: ZED Books.
- Altman, M. (2015a). "Cooperative Organizations as an Engine of Equitable Rural Economic Development," *Journal of Co-operative Organization and Management* 3: 14-23.
- Altman, M. (2015b). "Is There a Cooperative Advantage? Experimental Evidence on Economic and Social Variables as Determinants of Demand," May 11. Available at SSRN: <http://ssrn.com/abstract=2605190>.
- Avrahami, E. (2002) The Changing Kibbutz. <http://www.kibbutz.org.il/eng/>; 08/05/2008.
- Birchall, J. (1997). *The International Co-operative Movement*. Manchester, UK: Manchester University Press.
- Ben-Nur, A. and D. Jones (1995) "Employee Participation, Ownership, and Productivity: A Theoretical Framework," *Industrial Relations* 34: 532-554.
- Bonin, J.P., D.C. Jones, and L. Putterman (1993) "Theoretical and Empirical Studies of Producer Cooperatives: Will Ever the Twain Meet?" *Journal of Economic Literature* 31: 1290-1320.
- Communal Studies Association (2008). *The Kibbutz Movement*. <http://www.ic.org/icsa/kibbutz.html>; 08/05/2008.
- Cropp, R. (2005). *A Glossary for Cooperatives*. Bulletin no. 10. University of Wisconsin, Centre for the Study of Cooperatives, www.wisc.edu/uwcc; 08/05/2008.
- Doucoulagos, C. (1995) "Worker Participation and Productivity in Labor-Managed and Participatory Capitalist Firms: A Meta-Analysis," *Industrial and Labor Relations Review* 49: 58-77.
- Dow, G. (2003) *Governing the Firm: Workers' Control in Theory and Practice*. Cambridge, U.K. New York: Cambridge University Press.
- Ellerman, D. (2005). *Helping People Help Themselves: From the World Bank to an Alternative Philosophy of Development Assistance*. Ann Arbor, MI: University of Michigan Press.

- Emelianoff, I.V. (1948) *Economic Theory of Cooperation: Economic Structure of Cooperative Organizations*. Reprinted by the Center for Cooperatives, University of California, 1995, <http://www.cooperatives.ucdavis.edu/reports/index.htm>; 08/05/2008.
- Fairbairn, B. (2003) *Three Strategic Concepts for the Guidance of Co-operatives Linkage, Transparency, and Cognition*. Saskatoon, Canada: Centre for the Study of Co-operatives, University of Saskatchewan.
- Freeman, R.B. and J. Rogers (1999) *What Workers Want*. Ithaca and London: Cornell University Press, ILR Press.
- Global300.coop (2007) *International Co-operative Alliance, Global 300 List*, <http://www.global300.coop/en>.
- Gordon, D.M. (1998) "Conflict and Cooperation: An Empirical Glimpse of the Imperatives of Efficiency and Redistribution." In E.O. Wright, ed., *Recasting Egalitarianism: New rules for Communities, States and Markets*. London/New York: Verso, 181-207.
- Gulati, G. M., T.M. Isaac, W.A. Klein (2002) "When a Workers' Cooperative Works: The Case of Kerala Dinesh Beedi," *UCLA Law Review* 49:1417-1454
- Hill, R. (2000). "The Case of Missing Organizations: Co-operatives and the Textbooks," *Journal of Economic Education*, 31: 281-295.
- International Co-operative Alliance (2008). *What is a Co-operative?* <http://ica.coop/en/what-co-operative>.
- International Co-operative Alliance (2015). *Co-operative Facts and Figures*. <http://ica.coop/en/whats-co-op/co-operative-facts-figures>.
- Kalmi, P. (2007) "The Disappearance of Cooperatives from Economics Textbooks," *Cambridge Journal of Economics* 31: 625–647.
- Karaphillis, G., F. Duguid and A. Lake (2015). "Economic Impact of the Canadian Co-operative Sector: A Comparison of 2009-2010," Working Paper.
- Leibenstein, H. (1966) "Allocative Efficiency vs. 'X-Efficiency'," *American Economic Review* 56: 392-415.
- MacPherson, I. (1996). *Co-operative Principles for the 21st Century*. Geneva: International Cooperative Alliance.
- McCain, R.A. (2008). "Cooperative Games and Cooperative Organizations," *Journal of Socio-Economics*: doi:10.1016/j.socrec.2008.02.010.
- Mondragon Corporacion Cooperativa (2006) *The History of an Experience*, <http://www.mcc.es/ing/quienessomos/historia.html>; 08/05/2008.

- Business Council of Co-operatives and Mutuals (2015). 2014 National Mutual ECONOMY REPORT: Incorporating the Top 100 & Executive Insights Survey. Sydney: Business Council of Co-operatives and Mutuals.
- Prychitko, D.L. and J. Vanek, eds. (1996). Producer Cooperatives and Labor-Managed Systems, Vols. 1 and 2. Cheltenham, UK: Edward Elgar.
- Rural Cooperatives Center, University of California, Davis (2008) What is a Co-op?, <http://www.cooperatives.ucdavis.edu/whatis/index.htm>; 08/05/2008.
- Spear, R. (2000) "The Co-operative Advantage," *Annals of Co-operative and Public Economics* 71: 501-523.
- Thompson, D. (1994) "Co-operative Principles Then and Now," *Co-operative Grocer* 53, <http://www.cooperativegrocer.coop/articles/index.php?id=158>; 08/05/2008.
- Tomer, J.F. (2001) "Understanding High-Performance Work Systems: The Joint Contribution of Economics and Human Resource Management," *Journal of Socio-Economics* 30: 63-73.
- United Nations (2005). Cooperatives in Social Development: Report of the Secretary-General. http://www.un.org/esa/socdev/social/cooperatives/coop_docs.html; 08/05/2008.
- United Nations (2008a). "Cooperatives and Social Development," <http://www.un.org/esa/socdev/social/cooperatives/>; 08/05/2008.
- United Nations (2008b). "Cooperatives at Work," http://www.un.org/esa/socdev/social/cooperatives/coop_docs.html; 08/05/2008.
- Ward, B. (1958) "The Firm in Illyria: Market Syndicalism," *American Economic Review* 48: 566-589.
- Whyte, W. (1991) *Making Mondragon: The Growth and Dynamics of the Worker Cooperative Complex*. Ithaca, NY: Cornell University Press.
- Zeuli, K. (2004) "The Evolution of the Cooperative Model." In C.D. Merritt and N. Walzer, eds., *Cooperatives and Local Development: Theory and Applications for the 21st Century*. Armonk, NY/London, England: M.E. Sharpe: 52-69.

Figure 1

Unit Production Costs and X-Efficiency

