Overconfidence and Hubris: The Demise of Agricultural Co-operatives in Western Canada

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Abstract

The last two decades have seen major changes to the agricultural landscape in Canada and with them major changes to the co-operative sector. The grain handling co-operatives in Western Canada have disappeared, as have their counterparts in the dairy and poultry sectors. Outside of Western Canada, and particularly in Québec, co-ops in the latter sectors have remained successful, while rural retail and farm input co-operatives continue to thrive in all parts of the country. The purpose of this paper is to trace the changes that have occurred in the rural co-operative sector in Canada over the last 10-15 years. Particular attention is paid to the large agricultural co-operatives in Western Canada, since their decline has been particularly acute. It is argued that the overconfidence and hubris of co-op management were major contributing factors to the conversion of these co-ops to IOFs.

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Introduction

The last two decades have seen major changes to the agricultural landscape in Canada and with them major changes to Canadian co-operatives. As this paper shows, agricultural co-operatives in Western Canada are on the decline. The grain handling co-operatives that were once dominant in this region, along with the chicken processing and dairy co-ops, were converted to investor-owned firms (IOFs) through mergers or takeovers. Outside of Western Canada, and particularly in Québec, co-ops have remained successful. Rural retail and farm input co-operatives continue to thrive throughout Canada, and credit unions play an important role in farm financing. There is also some growth in organic co-operatives, farmers' markets and local food movements organized on a co-operative basis.

The purpose of this paper is to trace the changes that have occurred in the rural co-operative sector in Canada over the last 10-15 years. Particular attention is paid to the large agricultural co-operatives in Western Canada, since their decline has been particularly acute. It is argued that the overconfidence and hubris of co-op management were major contributing factors to the conversion of these co-ops to IOFs.

The usual overconfidence that characterizes business leaders seems to have been exacerbated in the large Western Canadian agricultural co-ops in the 1990s. Decades of relatively stable economic environments and success in smaller provincial markets, along with a perceived need to move very quickly in response to a rapidly changing economic and regulatory setting, appear to have contributed to the poor investment decisions made by co-op managers and board members.

The Changing Co-operative Landscape in Canada

Canadian agricultural co-operatives have undergone many changes over the last 20 years, and the extent of these changes has been significant.[1] The biggest of these changes have involved the conversion of a number of flagship co-operatives in Western Canada to investor-owned firms (IOFs). Saskatchewan Wheat Pool (SWP), once the largest agricultural co-operative in Canada, officially converted to a standard business

1 For a detailed statistical presentation of the changes that took place in Canadian agricultural co-operatives over the period 1986 to 2002, see Gurung and McCagg (2005) and McNeill and Daoust (2003).

corporation in 2005.[2] In that same year, Lilydale Foods, one of Canada's largest poultry processors, also converted to an IOF (Hailu and Goddard, 2009). In 2001, Agricore – itself the result of a merger between the Alberta Wheat Pool (AWP) and Manitoba Pool Elevators (MPE) in 1998 – merged with United Grain Growers (UGG) to form Agricore United (AU); AU was then acquired by SWP in 2007 (the amalgamated company is now known as Viterra) (Earl, 2009). Agrifoods International Co-operative Ltd. (or Dairyworld as it was often known), once one of the three largest dairy firms in Canada, was acquired by Saputo in 2001 (Lamprinakis, 2008). Prior to that, in 1992, United Grain Growers had issued public shares and added three non-farmer members to its 15 person board (Earl, 2009).

The result of these conversions can be seen in market share numbers. Table 1 shows co-operatives' market share in selected Canadian agricultural sectors from 1994 to 2004. The 2004 numbers have been presented in two forms. The first shows the actual co-operative market share in that year, while the second is revised to show the impact of the conversion of SWP and Lilydale to IOFs in 2005.

As table 1 illustrates, the large drop in co-operatives' market share in the dairy, poultry and eggs, and grain and oilseed sectors over the period from 1994 to 2004 was not solely a consequence of the conversions discussed above; instead, the reductions were occurring prior to the conversions as co-operative firms saw their sales fall and as they sold off assets to try and remain solvent. As well, the market share reductions were not unique to these sectors. Large drops in market share also occurred in livestock, fruits and vegetables, fertilizer and chemicals, and seeds. The one bright spot was the farm petroleum sector, where the co-operative market share rose from 27 percent in 1996 to 45 percent in 2004.

The changing structure of the agricultural co-operative sector in Canada can be further seen in table 2. In 1996, the list of the top 10 agricultural co-operatives in Canada was dominated by the prairie grain co-operatives (positions 1, 2 and 4); Agrifoods International and Lilydale were also major co-ops (positions 5 and 7, respectively). In total, five out of the top 10 co-ops in Canada were in Western Canada. By 2006, the prairie grain co-operatives had vanished from the list, while Québec claimed four spots on the Top 10. Dairy co-operatives continue to be important players,

2 In reality, the conversion occurred much earlier. At least two dates are possibilities: April 1996, when Pool shares began trading on the Toronto Stock Exchange; and January 2003, when the number of farmer-member directors was reduced from twelve to eight and four independent directors were added, one of which was designated the lead director with responsibility for managing the board (Fulton and Larson, 2009).

Table 1: Co-operatives' market share estimates, 1994–2004

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2004†
Dairy	61	57	59	62	64	66	59	42	42	38	39	39
Poultry and eggs	51	51	57	51	51	53	49	49	52	53	55	37
Grains and oilseeds	66	80	54	54	51	49	47	45	30	22	18	6
Honey & maple	23	31	20	21	27	28	29	24	5	26	26	26
Livestock	37	20	18	20	19	11	14	15	21	5	18	18
Fruits & vegetables	25	23	32	21	23	15	6	6	5	6	5	5
Fertilizer & chemicals			35		39	40	36	38	23	21	23	23
Petroleum (farm use)			27		30	31	32	41	43	43	45	45
Feed			17		14	13	14	15	13	14	14	14
Seeds			17		22	17	11	8	6	6	6	6

† Revised to reflect the conversion of Saskatchewan Wheat Pool (Grains and oilseeds) and Lilydale Co-operative (Poultry and eggs) to investor-owned firms. Revision done on the basis of product marketing.

Source: Co-operatives Secretariat (2007)

with five spots (Agropur, Gay-Lea Foods, Nutrinor, Scotsburn, and Farmer's Co-op Dairy). Increasingly important are fuel and agricultural input supply co-operatives (Coop fédérée and United Farmers of Alberta). The fuel supply co-operatives are, in fact, underrepresented in table 2, since Federated Co-operatives Limited, which is currently the largest co-operative in Canada and which supplies farm fuel through locally-owned co-operatives in rural areas of Western Canada, is not included in the list because it is not designated as an agricultural co-op.

Table 3 highlights the geographical shift in co-operative activity over the period 1996-2006. In 1996, the Prairies and British Columbia accounted for 73 percent of the revenues of the top 10 firms; Québec had 24 percent of revenues. By 2006, these percentages were more or less reversed, with Québec now having the dominant revenue share. This shift in the share of revenue was also accompanied by a significant drop in total revenues generated by the top 10 co-ops. This overall drop, however, conceals increases in the Maritimes region, in Québec and in Ontario; the overall decrease in revenues is a result of a massive drop in Western Canada.

Table 2: Top 10 agricultural co-operatives in Canada, 1996, 2001 and 2006.

1996	2001	2006
Saskatchewan Wheat Pool (SK)	Saskatchewan Wheat Pool (SK)	La Coop fédérée (QC)
Alberta Wheat Pool (AB)	Coopérative fédérée de Québec (QC)	Agropur Coopérative (QC)
Coopérative fédérée de Québec (QC)	Agropur (QC)	United Farmers of Alberta Coop (AB)
Manitoba Pool Elevators (MB)	United Farmers of Alberta (AB)	Gay-Lea Foods Co-op Ltd. (ON)
Agrifoods International Coop Ltd. (BC)	Lilydale Co-op Ltd. (AB)	Exceldor cooperative avicole (QC)
Agropur (QC)	Nutrinor, coop agroalimentaire (QC)	Nutrinor, coop agroalimentaire (QC)
Lilydale Co-op Ltd. (AB)	Gay-Lea Foods Co-op Ltd. (ON)	Scotsburn Co-op Services Ltd. (NS)
Gay-Lea Foods Co-op Ltd. (ON)	Manitoba Pork Marketing Co-op Inc. (MB)	Hensall District Co-op Inc. (ON)
Scotsburn Co-op Sdrvices Ltd. (NS)	Exceldor cooperative avicole (QC)	Farmer’s Co-op Dairy Ltd. (NS)
Agrinove (QC)	Scotsburn Co-op Services Ltd. (NS)	MB Pork Marketing Co-op Inc. (MB)

Source: Co-operatives Secretariat (2006)

Table 3: Top 10 agricultural co-operatives in Canada, by region, 1996, 2001 and 2006.

	1996			2001			2006		
Region	# in Top 10	Revenues (‘000s)	% of TR	# in Top 10	Revenues (‘000s)	% of TR	# in Top 10	Revenues (‘000s)	% of TR
Maritimes	1	193,915	2%	1	208,016	2%	2	421,954	5%
Quebec	3	2,981,868	24%	4	4,801,281	48%	4	6,002,683	69%
Ontario	1	200,816	2%	1	266,038	3%	2	545,411	6%
Prairies & British Columbia	5	8,912,408	73%	4	4,807,579	48%	2	1,784,040	20%
Total Revenues (TR)		12,289,008			10,082,579			8,760,174	

Source: Co-operatives Secretariat (2006)

Other geographical concentrations of co-operatives are present in Canada. For instance, water supply co-operatives are found mainly in Alberta, Manitoba and Québec, while natural gas and rural electric co-operatives are found almost exclusively in Alberta. Farm fuel supply co-operatives – this includes the United Farmers of Alberta and the local retail co-ops in the Co-operative Retailing System (and their wholesaler Federated Co-operatitves Ltd.) – are particularly strong in Western Canada. There is also some growth in organic co-operatives, farmers' markets and local food movements organized on a co-operative basis; most of the growth in these ventures is occurring in the area surrounding the large metropolitan areas such as Toronto, Montréal and Vancouver.

Credit unions, which play an important financial intermediary role in many rural areas, are also concentrated geographically, with nearly 50 percent of credit union/caisses populaire assets held in Québec. As table 4 shows, credit unions and caisses populaire held 17 percent of the farm debt in Canada in 2006. Regionally, this figure can be much higher – for instance, in 2006, credit unions in Saskatchewan and Manitoba held 25 percent of farm debt while the caisses populaires held 40 percent in Québec.

Rural co-operation and collective action in Canada does not just take the form of formal co-operative enterprises. For instance, a significant number of commodity groups across the country are using the powers available to them through provincial and federal legislation to create research and development organizations that fund research and undertake industry promotion activities. The funds for these activities are obtained through check-off levies on farm sales, and the spending of the funds is overseen by a farmer-elected board of directors. Although Canada is perhaps behind the leaders (Australia comes to mind in this group) in producer-funded R&D, there is nevertheless significant activity in this area.

One form of rural collective action that is gaining increasing attention in the European Union and the United States is the development of geographical indicators. Unlike these two regions, Canada generally has been slow in developing geographical indicators and currently has no regulatory structure in place that specifically deals with this issue. Instead, Canada uses trade mark law as the mechanism by which products can be geographically identified. Currently, trade mark law can only be used for geographical identification in the case of wine and spirits (Managing Intellectual Property, 2008).

Table 4: Sources of agriculture financing, selected regions, 1996, 2001, and 2006.

		1996		2001		2006	
in millions of dollars		Actual	%	Actual	%	Actual	%
Canada	Chartered	11,762	43%	18,502	45%	21,784	42%
	Government	7,039	25%	10,324	25%	15,277	29%
	Credit Unions	4,077	15%	6,359	15%	8,927	17%
	Other[1]	4,738	17%	5,827	14%	6,362	12%
Quebec	Chartered	1,819	37%	3,307	41%	4,344	41%
	Government	619	13%	1,055	13%	1,120	11%
	Credit Unions	1,988	41%	3,066	38%	4,197	40%
	Other[1]	442	9%	705	9%	873	8%
Manitoba	Chartered	950	37%	1,500	38%	2,299	40%
	Government	600	23%	965	24%	1,285	22%
	Credit Unions	531	21%	864	22%	1,466	25%
	Other[1]	507	20%	619	16%	755	13%
Saskatchewan	Chartered	1,464	30%	1,967	32%	2,068	29%
	Government	1,298	27%	1,461	24%	2,220	32%
	Credit Unions	1,002	21%	1,451	24%	1,771	25%
	Other[1]	1,046	22%	1,182	20%	966	14%

[1] Other includes insurance, trust companies, private individuals, supply companies and advance payment programs.

Source: Statistics Canada (2007)

Factors Affecting the Co-operative Landscape

The reasons for the changing pattern of co-operative presence in Canada are many. Given the dramatic changes that occurred in Western Canada and the speed at which they occurred, the discussion in this section and the remainder of the paper focuses primarily on co-op developments in this region. However, some attention is paid to what has happened in other parts of Canada, and particularly Québec where co-ops have continued to thrive.[3]

3 The changes to the agricultural co-operatives in Western Canada have also been examined

One factor that has long been identified as a problem for co-operatives is lack of capital. There is substantial evidence that this factor was at play in a number of the major co-op conversions discussed above. Hailu and Goddard (2009) argue that lack of access to capital was a major factor in the conversion of Lilydale. Emerging capital constraints were widely cited as the reason for the Saskatchewan Wheat Pool's share conversion in 1996; as Fulton and Larson (2009) demonstrate, the share conversion clearly marked the beginning of the decline of the Saskatchewan Wheat Pool as a co-operative (although the seeds of this decline were likely sown much earlier – see Earl (2009) for additional evidence on this point). Agrifoods International Ltd. was forced to sell its operations to Saputo in part because the co-op was financially strapped after borrowing large amounts of money to undertake a series of mergers and acquisitions in the 1990s (Goddard, 2002).

Numerous authors have suggested that member heterogeneity can result in conversion to an IOF (Hart and Moore, 1996) or in significant decision-making costs that results in the co-operative structure being inefficient (Hansmann, 1996). Other authors, most notably Cook (1995) (see also Vitaliano, 1983), have suggested that ill-defined property rights, which lead to free-rider, horizon, portfolio, control and influence problems, are major factors in the transformation of co-operatives. Agency costs – or the cost associated with the separation of management from ownership – have also been identified as being responsible for co-operative performance (Featherstone and Al-Kheraiji, 1995; Cook 1995).

Only a few studies directly examine agency costs for Canadian co-operatives. Hailu, Jeffrey, Goddard, and Ng (2005) provide evidence that, for Lilydale, short-run variable costs fall as debt increases, suggesting that larger debt reduces agency costs for this co-op. In the case of Federated Co-operatives Limited, debt appears to have no impact on short run variable costs. Hailu, Jeffrey, and Goddard (2007) find evidence that increased leverage is associated with increased agency costs (via lower productivity) in feed co-operatives; in petroleum co-ops the opposite relationship is found, with increased leverage resulting in higher productivity. None of these studies, however, specifically examine the factors affecting the conversion of co-ops to IOFs.

Fulton (1995) suggests two factors that are likely to make co-operation more difficult – the increased use and reliance on a language of individualism and the

by Earl (2007) and Goddard (2002). Earl (2007) explores the role of farmer philosophy in the demise of the grain handling co-ops, while Goddard (2002) provides an in-depth listing of the investment activities and corresponding financial success of a number of farm-related co-ops operating in Western Canada.

ongoing process of agricultural industrialization (see Helmberger 1966 for the first enunciation of this last point). The first of these factors appears to have some saliency in Canada. The continued strength of co-operatives in Québec and the demise of co-operatives in Western Canada corresponds with the larger political pattern observed in Canada over the past 20 or 30 years. In federal elections, for instance, Western Canada has been the stronghold of the more conservative parties (Reform, Conservatives), while Québec has eschewed the right and voted for more central or left-leaning parties (Liberal, Bloc).

At the level of agriculture, strong philosophical differences also exist. Québec agriculture has long been dominated by L'Union de producteurs agricoles (UPA), a trade-union like organization that represents all Québec farmers and plays a major role in agricultural policy formation both provincially and nationally. The syndicalist view that the UPA embodies is likely to be much more supportive of co-operation than the strongly individualistic philosophy that is expressed by agricultural organizations in Western Canada such as the Canadian Cattlemen's Association, the Western Canadian Wheat Growers Association and the Alberta Barley Commission, all of which have played an increasingly important role in Western Canadian policy debates. Earl (2007) argues that part of the reason for the decline of the Prairie wheat pools is a shift in farmer philosophy away from the view that markets are inherently dysfunctional and towards one in which individual freedom is valued more highly.

The policies promoted by the different agricultural producer organizations may lend some credence to the argument that agricultural industrialization has had an impact on co-operative activity and success. The UPA, for instance, has as one of its guiding principles the proposition that "Through its decisions and actions, the UPA promotes the preservation and development of human-scale businesses, essentially owned by families who keep control of the management and decision-making" (Union de producteurs agricoles, 2009). In contrast, the Canadian Cattlemen's Association, the Western Canadian Wheat Growers Association and the Alberta Barley Commission emphasize the need to create economic benefits and a strong and competitive agricultural industry.[4] In addition to representing different beliefs about the way in

4 For instance, the Canadian Cattlemen's Association indicates that "The CCA's vision is to have a dynamic, profitable Canadian beef industry with high-quality beef products recognized as the most outstanding by customers at home and around the world" (Canadian Cattlemen's Association, 2009). The corresponding statement for the Western Canadian Wheat Growers Association is "Our membership consists of progressive farmers and entrepreneurs who believe open and competitive markets, innovation, and investment are

which agriculture should evolve and develop, these value statements, if successfully acted upon, could also result in different agricultural structures. As Fulton (1995) suggests, the maintenance of "human-scale businesses", for instance, could be a factor in the ongoing strength of agricultural co-operatives.

In addition to the factors cited above, the demise of agricultural co-operatives – at least in Western Canada – has been linked to the role of management. Fulton and Larson (2009) argue that SWP's conversion from a co-operative to an IOF was precipitated by the Pool's financial difficulties in the late 1990s, financial difficulties that were a direct result of poor management decisions made during this period. These management decisions were, in turn, a consequence of management overconfidence and lack of board oversight. Earl (2009) suggests that SWP's 2007 takeover of Agricore United (AU) (by this time SWP was no longer a co-op) was in part the result of AU managers who failed to understand the importance of farmer control and board members who viewed shareholder's rights as trumping those of farmers.

As this paper will argue, management overconfidence and an accompanying lack of board oversight were important factors in the co-op conversions described above. The next section presents an overview of the literature on overconfidence and oversight. This discussion is then followed by an examination of conversions that occurred in Western Canada using the framework of overconfidence and oversight.

Overconfidence and Lack of Oversight

The cognitive theory of hubris and overconfidence provides a conceptual framework for understanding the failures of the major agricultural co-operatives in Western Canada over the past decade. While other factors were, of course, at work, the focus on overconfidence is undertaken to more fully explore its impact. An important factor in management overconfidence is the lack of effective oversight by the board of directors.

As Brown and Sarma (2007) point out, business executives are generally thought to be overconfident. The root causes of over optimism are selection bias (Gervais, Heaton, and Odean, 2006), as well as a number of cognitive errors – mistakes in the way that information is processed – that executives routinely make (Lovallo and

key to creating a stronger and more prosperous agricultural sector. We are governed by a voluntary board of directors, all of whom are farmers who share a passion for agriculture and a determination to make farming more profitable" (Western Canadian Wheat Growers Association, 2009).

Kahneman, 2003). Important errors include the propensity for people to overstate their ability (i.e., to see themselves as above average in their abilities and skills) and the inclination that people have to attribute positive outcomes to things that they have done, while attributing negative outcomes to outside events (so-called attribution errors). Among the consequences of these cognitive errors is hubris; managers believe they can do anything, even in situations where others have failed.

Business plans represent another source of over optimism in business settings. Business plans often start with a proposal, which, by its very nature, accentuates the positive. Anchoring – the cognitive tendency to put too much emphasis on initial positions and not enough on subsequent information – means that the final plan is almost sure to be positively biased as well. In addition, the so-called confirmation bias means that information acquired to test the assumptions and claims in the proposal will often be chosen to support the initial beliefs that underlay the proposal (Lovallo, Viguerie, Uhlaner, and Horn, 2007).

Over optimism can also be a result of competitor neglect. The propensity to develop business plans without considering what competitors will do can easily result in over capacity, price wars, and/or product duplication.

The best empirical evidence for overconfidence and hubris comes from an examination of business acquisitions (Roll, 1986; Malmendier and Tate, 2005, 2008). Firms making business acquisitions generally overpay, with the result that the shareholder wealth of the acquiring firm either falls or remains constant after the takeover. This acquisition evidence is particularly applicable to the co-operatives under consideration in this paper since, as will be discussed, it was major investments and acquisitions by all the co-ops that preceded and precipitated their conversion to IOFs.

Acquisition overpayment is linked to overconfidence and hubris because of a simple relationship – hubris and overconfidence mean that CEOs are often incapable of objectively valuing a take-over target; instead, they have an overwhelming presumption that their high valuation of a takeover target is correct, even when it is not. Hubris and overconfidence are particularly important when they are considered in conjunction with the investment funds to which a CEO has access. When CEOs have excess cash available, they tend to invest it in new ventures or acquisitions. Since CEOs tend to overpay for these acquisitions, the investments are often not successful (Malmendier and Tate, 2008).

Overconfident managers are expected to prefer debt to equity in the financing of new investments (Heaton, 2002). Malmendier, Tate, and Yan (2006) find that this preference leads to increases in leverage for firms that have overconfident managers.

Gombola and Marciukaityte (2007) find that debt-financing is associated with poorer stock performance for the period after financing occurs. Given the preference of over optimistic managers for debt, and the likelihood that over optimism leads to poor investment decisions, Gombola and Marciukaityte's (2007) result supports the notion that the structure of financing and post-financing performance are affected by over optimism. This relationship between debt structure and over optimism will be used later in the paper to make inferences about the degree of over optimism present in the large Western Canadian agricultural co-operatives.

CEO hubris and overconfidence generally play a bigger role when board vigilance is lacking – i.e., overpayment tends to be greater, the smaller is board oversight (Brown and Sarma, 2007). Agency problems can also be a direct factor in acquisition overpayment and poor investments.[5] Moreover, agency problems are likely to be greater in firms that have excess cash available for investment and acquisition purposes, since managers that have access to internal funds do not have to subject themselves to the monitoring that external capital markets provide (Jensen, 1986). Without this monitoring and oversight, managers are better able and more likely to make investments that benefit them personally rather than add shareholder value. As a consequence, it is argued that shareholders should request that excess cash be paid out to them (Jensen, 1986).

Agricultural co-ops possess a number of agency relationships. The farmer-members in a co-op are typically viewed as principals and the elected board members the agents. The board, however, is also viewed as a principal, with the co-op's senior management as the agents. This cascade of principal-agent relationships offers substantial room for the decisions made by senior management to differ from those that provide maximum

5 A principal-agent relationship exists when a principal hires or appoints an agent to carry out a task on the principal's behalf. Two key features characterize this relationship: (1) goal divergence between the principal and the agent; and (2) information asymmetry (the agent possesses more information than the principal about the environment in which decisions are being made, in large part because it is costly for the principal to acquire such information). As a consequence of these two features, the agent is able to make decisions that are not in the principal's interests (Eisenhardt, 1989). To counteract this outcome, the principal is required to provide agents with appropriate incentives and oversight so that they will behave in the interest of the principal. If these incentives and oversight are effective, the principal's goals are more or less achieved, albeit at the cost of providing the incentives and oversight. If these activities are not effective, agents are able to pursue their own goals at the principal's expense.

benefits to members; it also makes it more likely that management overconfidence and hubris are at play.

The principal-agent relationship is exacerbated because co-operatives can reach a point in size and complexity that makes it impossible for the board to fully monitor managerial behaviour, regardless of the board members' talents (Staatz, 1987). In addition to farmer-elected board members not having the knowledge and business skills possessed by senior managers (Ernst and Young Corporate Finance Inc., 2002), relatively infrequent board meetings make it difficult to determine if management has exercised proper due diligence. Agency problems can also become more severe over time. Hind (1997) provides evidence that co-ops become increasingly corporate centered (as opposed to member centered) as the age of the co-op increases. When information asymmetry is grouped with board inexperience, an implied trust in management, an inability to monitor management and greater corporate focus, the result is the potential for severe agency problems and, in turn, severe overconfidence problems.

Overconfidence and Co-op Conversions in Western Canada

Overconfidence and hubris have been identified as important factors in one of the co-op conversions that occurred in Western Canada, namely that of SWP (Fulton and Larson, 2009). The question posed in this section is whether overconfidence and hubris were also contributing factors to the conversion of the other large agricultural co-operatives in Western Canada.

The hypothesis put forward is that co-operatives in Western Canada had, prior to the 1990s, been operating in an economic environment that was highly regulated and thus relatively stable. This environment changed in the 1990s, and as a consequence of this change, management was given additional power and influence. Management was also overconfident – the co-ops that they managed had performed relatively well in the 1970s and the 1980s, and they believed that this strong performance was due to their management skills, rather than being a consequence of the protected regulatory and economic environment in which they operated.

Faced with a new environment and new competition, management believed they needed to move fast to keep their co-ops alive. As they did so, proper internal due diligence was often not carried out and decisions were often made on the basis of gut feelings about the way the industry was headed. The reactions of competitors were often ignored; in other cases, investment and strategic decisions reflected frictions between the CEOs of at least two of the co-ops and appeared to have been made with the sole purpose of depriving their counterparts with an investment opportunity.

Board members lacked the skills and experience to evaluate the many decisions that they were being asked to make, which resulted in a lack of effective oversight. Oversight was also reduced as management assumed greater power and influence, a change that was deemed necessary if the co-op was to be able to move quickly and position itself in a rapidly changing environment.

In this section we trace out the decisions made by five large agricultural co-operatives in Western Canada during the 1990s, and argue that these decisions are consistent with management overconfidence and a lack of board oversight. The next subsection, which describes the economic environment of Western Canada in the 1990s, sets the stage for the subsequent examination of the three Prairie grain co-operatives, Lilydale poultry co-op, and Dairyworld.

The Economic Environment of Western Canada in the 1990s

The grains and livestock sectors dominate the agricultural landscape in Western Canada. Of these, the grains sector was subjected to a number of major policy shocks in the 1990s, as rail deregulation, trade liberalization and challenges to the Canadian Wheat Board (CWB) prompted a major restructuring of the industry. In 1995, the long-standing subsidy on grain transportation – the Crow Rate – was removed, a policy change that was induced in part by the World Trade Organization (WTO) agreement and in part by a need to cut federal government spending. The railways were allowed to set their freight rates according to market forces (subject to a revenue cap) and to close branch lines. In reaction to a more liberalized trading environment created by both the WTO agreement and the North American Free Trade Agreement (NAFTA), and a belief that the CWB might disappear, a number of the multinational grain companies entered the Western Canadian market (see Earl (2009) and Lang (1996) for further details).

The changes to grain transportation policy and the WTO agreement had a direct and significant economic effect on the grain industry as transportation costs increased and farm-gate prices for grain fell. These changes also disrupted what had been a relatively stable regulatory environment (see discussion below). In addition, the decrease in grain prices throughout the Prairie provinces had an impact on the livestock industry. Substantial investments were made in hog production, and to a lesser extent beef production, in anticipation of greater profitability in these two sectors as feed prices fell.

The fall in feed prices also affected the supply-managed industries of dairy and poultry, since they too are highly dependent on feed. Indeed, the expectation was that production of supply-managed commodities was going to shift west in Canada in response to these lower prices; this expectation was further fueled by a belief that trade restrictions protecting supply management would be reduced in future WTO agreements, changes that would further advantage Western Canada with its lower cost of production. Processors in the supply management industries also faced increased economic pressures from retailers as new players (e.g., WalMart) entered and as existing players amalgamated.

In response to these changes, the grain companies moved to consolidate and modernize their grain handling systems and to shift their operations increasingly towards value-added activities. For the poultry and dairy co-ops, the response was to get bigger through mergers and new investments, as well as to invest in new value-added activities.

The Prairie Grain Co-operatives

A *Western Producer* newspaper article from August 2001 nicely captures the history of events in the grain industry in Western Canada during the 1990s. The article quotes analysts and grain industry officials making the point that debt from overspending in the late 1990s was weighing down the industry, and that there were too many elevators chasing too little grain (White, 2001). The result was low returns for the grain handling companies. In the end, all the companies could not survive and a major consolidation was required; as part of this consolidation, the co-ops were required to convert to or be taken over by IOFs.

At the end of the 1980s, the grain handling industry in Western Canada was dominated by four co-operatives: UGG and the three prairie pools – SWP, AWP and MPE. The three prairie pools each operated in only their own provincial market and held the dominant market share in those markets – typical market shares were in the range of 50-60 percent. UGG operated elevators across the three prairie provinces.

Prior to the 1990s both grain transportation and handling in Western Canada were highly regulated. The result of this regulation was an outdated and overbuilt grain handling sector, spread over a vast network of branch lines (Earl, 2009). While the regulatory environment caused significant inefficiencies, it did provide relatively stable market shares and a relatively easy environment in which to manage. This stability did come at a cost, however – as a result of inefficiencies (Earl, 2009) and a strategy to maintain market share in the face of declining member loyalty (Lang and Fulton, 2004), profits for the grain co-ops fell over the 1980s.

The new regulatory environment disrupted this relative stability and prompted a new round of investment – this investment was in part designed to modernize the grain handling system and in part to take advantages of valued-added opportunities that were believed to exist. This investment was financed in a variety of ways. UGG financed its investments by issuing public shares in 1993, with SWP following a similar path in 1996.[6] For both companies, however, investments were financed largely by increased debt, rather than through additional equity infusions. As Fulton and Larson (2009) argue, the issuing of public shares allowed the co-ops doing so to borrow greater amounts of money than was possible under a traditional co-op structure. For MPE and AWP, the investments were also financed by debt.

The financial impact of these investments on the three prairie pools can be seen in table 5. Debt levels increased significantly for all three co-ops, as did the debt-equity ratio. These investments, however, did not translate into higher earnings. Indeed, in all cases substantial losses were being incurred by 2000.

Part of the reason for the lack of growth in earnings is that the three prairie pools and UGG were fighting over a fixed and even declining market base. With the signing of the Canada-United States Free Trade Agreement (CUSTA) and then NAFTA, a number of transnational grain companies, including Continental Grain and Louis Dreyfus, entered the market and built new grain handling capacity. As well, farmers themselves were investing in grain terminals – in total, farmers in Saskatchewan invested in 11 producer-owned terminals. Unlike previous time periods, however, this farmer investment did not take place through co-operatives, but rather through limited liability companies. Some of these ventures were stand-alone operations, while others were joint ventures with other grain companies (for example, Cargill was involved in four ventures) (Herman, 2003). Grain was also diverted from the grain handing system into hog and beef production.

The investments were made in a business atmosphere where it was believed that time was of the essence. For instance, as SWP management indicated some years later (see Fulton and Larson (2009)), the Pool needed to "move rapidly to beat [the] United

6 With the issuance of public shares in 1993, UGG no longer saw itself as a co-op; it did, however, see itself as a largely farmer-controlled company (Earl, 2009). With its share conversion, SWP labeled itself as a publicly-traded co-operative.

States" and it needed to "become more of a global player and expand beyond Saskatchewan borders." There was a conviction that if the Pool did not "stay at a significant size . . . [it would] become one of two things: irrelevant or sucked up." However, if SWP were to move quickly, management and board members believed it could become "the ConAgra of the North" and become "one of four or five top grain companies in the world" (Fulton and Larson, 2009).[7]

One result of this need to build fast was that the traditional boundaries between the three prairie pools were broken down. SWP began building grain elevators in Alberta and Manitoba, while AWP responded with construction in Saskatchewan. A July 1996 *Western Producer* headline "AB, SK wheat pools lock horns" nicely captures the state of affairs at the time. In the story, AWP indicates that it is "not trying to create waves" by its decision to joint venture on a Saskatchewan-located inland terminal, while Don Loewen, the SWP's CEO, comments that he sees AWP as a competitor and his company will go head to head with AWP (Ewins, 1996).

SWP was historically the largest grain handling company in Western Canada and was not about to give up this position. As a case in point, Project Horizon, the SWP's C$270 million plan to modernize its grain handling system, began with an announcement in 1997 of the location of all twenty two elevators in the project. Construction also began more or less simultaneously on all the high throughput elevators. The Pool "firmly believed they were going to stop the competition literally by tying up all the construction capacity for these high throughput elevators in the short-run." This approach did not work and board members were astonished that companies would build facilities just a few miles down the road from a SWP high throughput location. The competition's response negatively affected the Pool's revenue projections from grain handling, as the Pool had "explicitly included in their assumptions that their producers would go to their high throughput elevators" (Fulton and Larson, 2009).

At the same time that SWP was making its expansion plans, AWP and MPE were making their own. In early 1997 the two co-ops announced their intention to purchase the assets of UGG, ostensibly to prevent a takeover of this company by an American multinational. The pools' plan was to merge their assets and set up a new co-op grain company in Saskatchewan. To indicate their seriousness, AWP and MPE announced

7 The SWP quotes provided here and later in the paper were obtained through interviews with board members and management that took place during the first half of 2005. See Lang (1996) for further details.

that they had purchased nearly 15 percent of UGG shares (Ewins, 1997a). The pools' bid was seen as inadequate by UGG and in March 1997 the two pools were forced to walk away from the takeover after UGG threatened to enact a poison pill (WP Editorial Staff, 1997).[8]

UGG also sought a "white knight" in Archer Daniels Midland (ADM), which eventually acquired 45 percent of the company (Earl, 2009). ADM's purchase included C$50 million of new capital; this capital infusion lead UGG's CEO Brian Hayward to indicate that "We anticipate we're going to have a record capital program this fiscal year." However, he went on to say that the "cash infusion and this year's record capital program don't mean the company is about to go on a wild spending spree. One thing about capital spending is you have to do a lot of planning in advance. . . .We're not about to sacrifice good planning on the altar of spending" (Ewins, 1997b). While UGG did, in fact, remain somewhat stronger financially than the three pools, Hayward's remarks provide an insight into the then current decision-making environment.

The sense that investment activities by the co-ops were spiraling out of control was reflected in discussions held in December 1997 regarding a merger of the three pools. Although all CEOs indicated that they believed the idea was good, there was no consensus about how it should be structured. SWP indicated that, as the largest co-op, it would run the merged entity, while AWP members indicated that they would not be particularly thrilled with a takeover by SWP (Ewins, 1997c). The merger did not proceed.

Indeed, while merger discussions were underway, both MPE and SWP were still making and announcing their own plans. MPE indicated in December 1997 that it planned to build seven large concrete elevators in a terminal hub system, and that further expansion had not been ruled out – "We haven't thrown up a wall on borders east, west or south" indicated MPE's CEO Greg Arason (WP Winnipeg Bureau Staff, 1997). At the same time, AWP officials were expressing their amazement at a service deal that SWP had made with the United Farmers of Alberta (UFA) that gave SWP the ability to sell farm inputs through UFA outlets across Alberta (Briere and Duckworth, 1997; Raine, 1998).

With a merger among the three pools not possible, AWP and MPE delegates voted in August to merge their operations and form Agricore. Agricore immediately moved

8 The implementation of a poison pill was approved by the Manitoba courts. If UGG had gone ahead with the poison pill it would have released a large amount of new shares onto the stock market and AWP and MPE would have been prevented from purchasing any of the new shares which would have diluted its ownership of UGG (WP Editorial Staff, 1997).

to acquire operations in Saskatchewan through the purchase of three farm input suppliers (by the end of 2000, Agricore would have acquired 10 farm supply companies in the province). It also unsuccessfully bid on another input supplier, Humboldt Flour Mills; it was outbid by SWP (see below for more details). Agricore also announced its intention to build a new grain terminal in southwest Saskatchewan. By the end of 2000, Agricore would have announced plans to build three additional terminals in Saskatchewan.

In November, Agricore outlined its capital spending plans, indicating that it had budgeted C$200 million for 1998-99 and C$170 million for 1999-00 (these amounts compare to expenditures of only C$125 million between the two companies in 1997-98). The view was that this "aggressive capital spending program in the next two years will help put their company on the road to being #1" (Ewins, 1998b). As Agricore indicated, "we would like to be the leading organization in both farm inputs and grain handling." By December, Cummings announced that there would be "strategic alliances beyond Canada ... a year from now." In January 1999, Agricore purchased the North American pulse crop operations from Continental Grain for an undisclosed price. Over the next year, Agricore made a number of other investments in value-added processing operations.

The purchase of Humboldt Flour Mills by SWP deserves particular attention, since although it was not SWP's largest investment, it "was the bellwether that told everybody else in rural Saskatchewan [that the Pool] was out of control." One senior manager described the 1998 acquisition of Humboldt Flour Mills as "a bidding war with Agricore." The SWP "didn't want Alberta Wheat Pool in farm supplies in innermost Saskatchewan," so the Pool "ended [up] paying C$16 million for Humboldt Flour Mills." A range of managers and board members saw the acquisition as "keep[ing] Agricore out" even if that meant paying "far more than what made economic sense."

While additional investments were announced by both Agricore and SWP (notable among these were the SWP's investments in grain handling terminals in Poland and Mexico in 1997, and in a grain-marketing firm in England in 1998, all of which were unsuccessful), by 1999-2000 the result was clear – both Agricore and SWP were losing money and they could not continue in their current structure.

In the case of SWP, a number of senior management, including CEO Don Loewen, were asked to resign in 1999. When the new CEO, Mayo Schmidt, took over in 2000 he immediately began selling off assets in an effort to keep the co-op solvent. In early 2003, the Pool was forced into a C$405 million debt restructuring plan and further divestment of its assets that marked the end of its co-operative status (Fulton and Larson, 2009). For Agricore, deteriorating financial performance resulted in a takeover by UGG and the formation of Agricore United (AU) in 2001 (Earl, 2009).

The investment decisions undertaken by the three prairie pools in the latter part of the 1990s reflect a high degree of management hubris and overconfidence. Senior management in all the co-ops clearly saw themselves as the ones who were going to be successful and able to transform their organizations into not only the leaders in Western Canada, but internationally. In all cases, the significant investments that were undertaken were financed by dramatically increasing the debt-equity ratio, an indication that management and the board believed that either there was no downside risk or that it could be be handled effectively. Regardless of the belief, the hubris behind them was substantial.

As Fulton and Larson (2009) point out, anchoring and the confirmation bias were both at work in the SWP case – business proposals and investment analyses were constructed to be optimistic (e.g., members were expected to continue to patronize the co-op in the post-Project Horizon period), which in turn appears to have bred further optimism. The SWP case also provides evidence that the SWP's CEO may have believed that success stemmed from the actions and decisions that he made, rather than due to outside events or good fortune (Fulton and Larson, 2009). Further to this point, although direct evidence is limited, it is suggestive that all three co-ops were at one time dominant within their provincial markets; such a history could be expected to give rise to a belief that future success would also come to all three organizations.

Finally, competitor neglect seems to have been important. Evidence was presented that SWP felt it could keep out competitors if it moved quickly; as a consequence, the decisions of these competitors were not considered. Even though all the co-ops acknowledged that they were entering market territory that had long been held by their counterparts and that there were other players present, each co-op also indicated that in every case it was the one that would prevail. Don Loewen, for instance, commented that "most of the farmer-owned terminals being built across the province are not sound investments" (Ewins, 1996). In commenting on plans to build a grain terminal in south-west Saskatchewan, Agricore CEO Gordon Cummings said, "We look forward enthusiastically to offering Saskatchewan farmers a competitive alternative in this world-class facility" (Ewins, 1998a).

The hubris and overconfidence exhibited by the three pools was accompanied by a lack of oversight, at least in the SWP case. Fulton and Larson (2009) provide evidence that the need to move quickly to diversify and invest affected the analysis and the decision-making process. “Ideas did not get ... proper and adequate evaluation, if Loewen wanted to do it everyone would find a way to make it happen.” Some interviewees were of the opinion that people “in very senior operational positions [had] no outside experience” and “the board did not have the makeup or people on it . . . that would occur in a company somewhere else.” One management employee used the words “naïveté and arrogance” to describe the SWP’s corporate culture. The Pool was considered to be lacking the experience and background in its management and board to say, “No, this doesn’t make sense.”

A further problem identified at SWP – namely that farmer board members simply did not have the time nor the expertise to understand and monitor all the decisions being made – was likely equally applicable at AWP and MPE (and later Agricore). The comment was made that at the SWP, “[t]he board of directors did not have the makeup or the people on it that would normally have served that check and balance to senior management.” At the same time, “as the business got more sophisticated, and more complicated, and moved further away from the farm gate it got tougher” for board members to assess proposals. The volume of proposals and expected promptness for decisions to be made ”would have been difficult even for a competent board to stay abreast and do a fair job of assessing what was coming in.” As one SWP board member admitted, “As we got more external, we had to rely more and more on our CEO and CFO and others to provide us with the types of insights and analysis we needed to make decisions” (Fulton and Larson, 2009).

Lilydale

Lilydale started as a poultry co-operative in 1940 providing eggs to Britain during World War II. Over the years Lilydale generally had positive net earnings, conservative capital expenditures and a manageable debt load. As with the other agricultural co-ops under consideration, agricultural deregulation in the 1980s spurred Lilydale to expand to remain competitive. In its 1988 Annual Report, CUSTA was acknowledged as the catalyst for U.S. processors to buy up Canadian firms. There was a belief at Lilydale that “increasing globalization [was] making size crucial” so “the Western Canada poultry processing industry must be of such a size that it can both deal from a position of strength with the huge retailers . . . as well as meet the competition from the large U.S. firms who will likely attempt to dominate [the] market” (Lilydale (1988), p. 8). Both the board and management firmly believed they could remain successful as long as their co-op was “of a size and stature that it can compete effectively in the marketplace of the future” (Lilydale (1988), p. 8).

By 1994, Lilydale had grown to be the third largest poultry processor in Canada with six processing plants, six corporate farms, five hatcheries, two further processing plants and one egg plant. Lilydale also recognized a classic co-op finance problem – how to achieve growth while revolving member equity. “In the longer term our greatest challenge will continue to centre around how the co-operative is financed. Where will the equity capital come from to sustain the phenomenal growth necessary to achieve the level of competitiveness that we believe the industry will be expected to face in the future?” (Lilydale (1994), p. 6). Lilydale did feel “fortunate” to have “a very strong team of dedicated and loyal members and employees” whose “combined efforts and understanding will allow Lilydale to succeed in the future just as [it has] in the past” (Lilydale (1994), p. 6). Although the co-op admitted to having troubles in achieving growth and revolving equity – in fact there was no equity redemption payout that year – there was still a strong belief that the board and management would continue to succeed.

Significant losses in 1995 (C$1.95 million) were blamed on the chicken industry changing its method of setting quota. However, when the financials had improved by 1997, the positive financial result was “attributed to the strong focus of the board and management working together to be as lean and efficient as possible.”

In 2001, a new CEO – Frank Burzdy – was hired from the SWP. Lilydale was now the largest poultry processor in Canada with sales of C$500 million and the co-op was on “… course to becoming the Canadian poultry industry leader” (Lilydale, 2001). Capital spending in 2001/02 was C$6.9 million and 2002/03 spending was budgeted to be over C$13 million in order to make “investment[s] crucial to [Lilydale’s] continued success” (Lilydale (2001), p. 8). Although the board and management admitted to being “concerned with the co-operative’s underlying financial structure” and were in the process of developing a business plan to “specify the actions [they] must take to return the co-operative to a more acceptable level of earnings as well as improve the financial stability of [the] organization,” they assured the membership that the “management team is working diligently to prepare [the] organization to manage the change and emerge successful” (Lilydale (1999), p. 5). Board Chair Erv Wiens commented that “Each year I am more enthusiastic about the future of our company. We cannot see the future with perfect clarity, however, I am confident that we have the people to successfully navigate for us” (Lilydale (1999), p. 2).

Lilydale’s growth in 2001 was attributed to “. . . the diligent efforts of our management and staff” (Lilydale (2000), p. 2). With a newly created business plan to reach Lilydale’s vision “to be the Canadian poultry industry leader” and a new board chair, the company achieved its highest net earnings (C$7.57 million) since 1987. Long-term debt was nearly C$40 million and capital expenditures were still strong.

This year, however, was the turning point for Lilydale. In the 2001/02 Annual Report, Lilydale reported that it had been a challenging year "due to a number of economic and market factors" (Lilydale (2001), p. 4), among them net losses of C$0.6 million and long-term debt well over C$42 million. But Lilydale remained "more committed than ever to long-term innovation and excellence" . . . and "[b]y embracing change and pursuing opportunities for growth, we will grow our bottom line and continue to build on our tradition of leadership in the poultry industry" (Lilydale (2001), p. 7). Blaming the negative financials on outside forces, capital expenditures for 2003 were only slightly scaled back to C$9.5 million (Lilydale (2001), p. 27).

After another loss (C$0.7 million) in 2002, Lilydale sold its corporate farms the following year along with its egg division and two facilities. Lilydale's lender, Scotia Bank, slashed its credit line from C$45 to C$10 million. Net operating losses increased to a high of C$18.4 million. This time the losses were blamed on low wholesale poultry prices, overproduction and loss of market share to competitors. Burzdy was asked to step down from his position as CEO in 2003 and the CFO left in early 2004. Although Lilydale was able to secure significant deals to become Costco's national supplier and to be the exclusive supplier for Western Grocers, the reality was that an alternate means of raising equity was needed after a checkoff program to raise C$20 million was unsuccessful. The result was that in 2005, after 65 years as a co-op, Lilydale converted to an investor-owned firm.

As with SWP, MPE and AWP (and subsequently Agricore), Lilydale's debt-equity ratio increased substantially over the 1990s, reaching a high of 2.23 in 2000 (see table 5). Following the argument that overoptimistic managers prefer to rely on debt rather than equity, the increased use of debt suggests overconfidence was a factor among Lilydale's board and management. Overconfidence is also suggested by the inclination for management and the board to blame losses on outside events while taking credit for positive financial results.

It could be argued that Lilydale's troubles ultimately stemmed from an inability to raise sufficient capital to finance the changes they felt were required. Under this argument, Lilydale succumbed to the classic co-op finance problem – members were unable to supply sufficient capital for the long-term success of the co-op. While this perspective may shed some light on what happened at Lilydale, it does not provide the answer as to why Lilydale proceeded, as did the grain handling co-ops described in the previous section, to take on excessive debt. To explain the choices that were made by management and the board, it is necessary to delve into the motivations for the use of increased debt. As Heaton (2002) argues, attributing overoptimism to management is a parsimonious way of capturing key behavioural aspects of a business's leaders.

Dairyworld

Agrifoods International had its origins in 1992 when British Columbia's Fraser Valley Milk Producers merged with the Central and Northern Alberta Dairy Pools. Although Saskatchewan's Dairy Producers Co-operative Limited (DPCL) was initially part of the merger talks, they did not join in 1992. When they did join in 1996, Dairyworld became the largest dairy co-op in Canada and the largest food company west of Ontario, and was able to position itself as a major national and international dairy processor. In December 2000, Saputo announced it would purchase the fluid milk and cheese operations of Dairyworld for C$407 million; the transaction was completed in February 2001. Agrifoods International still exists as a federal co-op that handles transportation and logistics of raw milk.

Much less information is available about Dairyworld than the other co-ops, in large part because the co-op kept most of its financial records confidential, even to its members. Some financial results, however, are available. Table 5 shows that Dairyworld began its life with a very high debt-equity ratio of 3.5; this ratio then rose to an astonishing 6.4 in 2000 (see Goddard, 2002).

From its beginnings in 1992 until the end of 1999, Dairyworld engaged in 15 acquisitions – everything from cheese plants to refrigerated food processors to oils and margarine producers. The total value of the investments was C$152 million. Dairyworld also engaged in one major divestiture during this period – a C$47.4 million sale of its ice cream division to Nestlé in early 1997. With its purchase of Baxter Foods of New Brunswick in early 1999, Dairyworld was able to claim that it was a national dairy.

A number of impetuses for these acquisitions have been identified. One was the growing concentration in the dairy processing industry. In 1997, Parmalat entered Canada, purchasing Beatrice and Ault Foods to become the largest dairy company in Canada. At the same time, Agropur, the Quebéc dairy co-op, purchased Ault's Ontario operations and became the second largest dairy in the country; with this move, Dairyworld dropped to third place. In 1999, there were five large processors in Canada: Parmalat, Agropur, Dairyworld, Saputo, and Lactel. By the end of 2000, only three of these remained: Parmalat, Agropur, and Saputo. This growing concentration of the dairy sector mirrors the pattern in other places such as New Zealand and the E.U. (Goddard, 2002; Byfield, 2001).

A second factor was the growing intensity of competition from the retail sector. In 1992, the national CR5 ratio in this sector was 19 percent. Ten years later, the national CR5 ratio had risen to 40 percent, while the regional and local concentration ratios were much higher. This growing consolidation of the retail sector placed pressure on processors – whether they were in the area of dairy or meat or baked goods – to become national suppliers. Indeed, without a significant national presence, processors were unable to obtain the contracts to supply these large national grocery chains (Goddard, 2002; Byfield, 2001).

While rising horizontal and vertical competition likely did make it more difficult for Dairyworld to succeed, the real source of its downfall has to be placed with the co-operative's debt structure. While a number of hypotheses can be put forward as to why Dairyworld was so highly leveraged, among the more likely is that of overconfidence. The pattern of acquisitions, along with the high debt-equity ratio, both point to a board and management that would appear to have been highly overconfident.

Discussion and Conclusion

Agricultural co-operatives in Canada have undergone a number of major changes in the past 15-20 years. The most substantial changes have occurred in Western Canada where most of the large co-operatives have converted to IOFs. The result has been a major loss of co-op market share in the grain, poultry and dairy sectors. Outside of Western Canada, agricultural co-operatives have fared better. This is particularly the case in Québec where four of the top 10 agricultural co-ops in Canada now reside.

In this paper we argue that the poor performance and decline of the large agricultural co-ops in Western Canada can be linked to management overconfidence and hubris and to a lack of board oversight. All five of the co-ops studied – SWP, AWP, MPE, Lilydale and Dairyworld – had high debt-equity ratios, one of the indications that overconfidence was a factor in management decision making. Overconfident managers are willing to finance capital expansion with debt rather than equity because they see little downside risk to the investments they are making; they also believe they can succeed even if competitors cannot.

All five co-operatives examined undertook ambitious capital spending programs soon after deregulation and trade liberalization began in the early 1990s. The nature of these spending programs provides further evidence of managerial hubris and lack of board oversight. The co-ops also greatly expanded their operations in a very short period of time, often moving into new business areas where they had little or no experience. Most of the investments were either unprofitable or failed to generate sufficient revenue to sustain the organization.

A common theme found in all the cases was the need for the co-op to move quickly to reposition itself in a new economic and regulatory environment – whether this was the entry of new multinational competitors, the introduction of new trade agreements, the removal of regulatory barriers, or the loss of major subsidies. And the co-ops did move quickly, with the bulk of the capital spending taking place in the 1997-2001 period.

To move quickly, the co-ops altered their traditional structures. In some cases these alterations were formal, as in the case of UGG and SWP who both introduced new financial structures. In other cases – the SWP is a case in point – the new structure involved a concentration of power in senior management; part of this concentration of power revolved around the need for the board to rely on management at a time when the co-op's operations were becoming increasingly complex and when decisions were being made rapidly. Exacerbating this concentration of power was a shift in the nature of the co-op CEOs. At least two of the co-ops – AWP and SWP – hired CEOs who had a history of moving aggressively (Earl, 2007).

The historical success of these co-operatives may also have been a factor in the hubris and overconfidence that was exhibited. Not only did each co-op believe it should be the dominant player (a view consistent with each co-op having long been the most important player in its provincial market), each co-op also believed it had the knowledge and the expertise to achieve this dominance, even when operating outside of its traditional area of expertise. The propensity for people to overstate their ability and to attribute positive outcomes to actions they have taken are both hallmarks of overconfidence.

Management overconfidence and hubris were not the only factors that contributed to the demise of the large agricultural co-ops. For instance, Earl (2007) argues that a shift in farmer philosophy towards a greater embracement of the market as a decision-making mechanism may also have been a factor. Interestingly, this shift in philosophy may have contributed to the increasing concentration of power in the hands of co-op management, particularly if farmers equated a more laissez faire philosophy with a more hands-off approach to management.

It also needs to be pointed out that the late 1990s and early 2000s, when most of the investment decisions were being made, was also the period of the so-called dot-com bubble. During a time when Internet companies that had yet to turn a profit were being sold for millions of dollars, it is easy to see how market exuberance could take over and how oversight could be relaxed. Indeed, lack of effective governance, as the failure of Enron highlights, was believed to be a significant enough problem that new legislation and procedures (e.g., Sarbanes-Oxley) were introduced to deal with it.

The lack of effective governance, as illustrated so powerfully in the Enron case, is the result of numerous factors including information asymmetry and a shift in the concentration of power. As Demski (2005) argues, oversight structures are complex and involve a number of players, including auditors, analysts, board members, management, lawyers, investors and regulators. Amongst the factors affecting the collective performance of this group of players is herding behaviour. If decisions are made sequentially and people base their decisions on what they see others doing, rather than doing the analysis themselves, the result can be a situation where everyone behaves in more or less the same way (Demski, 2005). On the basis of this argument, hubris and overconfidence could be contagious – management throughout the co-op becomes increasingly convinced that it is infallible, while board members increasingly believe that oversight is not required.

Contagion may also have an impact outside the co-op. As was seen in the discussion in the previous section (this was particularly the case in the grain co-ops), all the firms in a particular sector followed the same general strategy and invested in the same kind of activities. In undertaking similar activities, were managers responding to market signals or were they simply following the lead of others? If the latter, then hubris and overconfidence can spread from one company to another.

With its focus on management overconfidence and lack of board oversight, this paper argues that greater attention must be paid to co-op management when examining co-operative viability and financial success. As we show, co-operatives are not immune to the overconfidence and hubris that, in their more severe form, negatively affect the performance of all business entities.

Indeed, for the cases examined in the paper, the co-operative nature of the organizations may have been a contributing factor to overconfidence. Specifically, the historical success of co-ops during periods of relative economic and regulatory stability may have lead, in part, to attribution errors that, in turn, were factors in management overconfidence. If a co-op’s success during more stable periods can be linked to its co-operative structure (e.g., member ownership leads to greater member commitment), then the co-op structure may in fact be linked to managerial overconfidence. Conversely, it may be that what is being observed is simply what happens to any successful business, whether it is a co-op or not.

A final comment is warranted on the co-operative nature of the organizations examined in this paper. As pointed out earlier, one of the key problems facing co-ops is a lack of equity capital. The traditional concern over the lack of capital focuses on the inability of the co-op to undertake investments that are profitable and could contribute to co-operative growth (the assumption is that the need to keep the debt-equity ratio at reasonable levels constrains investment). Under this perspective, a co-operative's performance could suffer because it could not keep up with its IOF counterparts.

The discussion and analysis in this paper suggest a second reason why a shortage of equity capital may be a problem for co-ops. If a co-op is lead by overconfident management, the result is likely to be similar to what was observed in the case of AWP, MPE, Lilydale and Dairyworld – the co-op will finance its investments with debt, the debt-equity ratio will rise, and, since the investments are generally not profitable, financial viability will deteriorate. In addition to suggesting that overconfident managers may have a particularly strong impact on co-operatives, this line of reasoning also implies that since co-ops routinely rely on debt capital to finance their operations, overconfident managers may find them relatively attractive places to work.

Table 5: Total debt, debt:equity ratio and net earnings for selected prairie co-ops, 1988–2002, biannually.

		AWP	MPE	Agricore[a]	UGG	SWP	Lilydale	Dairyworld[b]
		in thousands of dollars except for financial ratios						
1988	Total Debt	190,138	92,471			349,763	36,152	
	D:E Ratio	1.46	1.05		2.44	1.03	1.29	
	Net Earnings	8,675	2,186		736	27,536	1,210	
1990	Total Debt	247,394	98,171		293,501	415,580		
	D:E Ratio	1.72	1.25		3.34	1.22	1.43	
	Net Earnings	5,912	4,568		690	35,340	4,878	
1992	Total Debt	217,730	103,028		202,876	297,557		1.15
	D:E Ratio	1.38	1.21		2.13	0.81	1.48	3.61
	Net Earnings	12,263	10,668			39,946	4,347	
1994	Total Debt	366,950	173,555		423,527	576,358	47,990	1.10
	D:E Ratio	2.36	1.79		3.01	1.43	1.57	4.35
	Net Earnings	4,269	9,421		153	31,097	4,587	
1996	Total Debt	441,936	273,244		397,722	649,054	58,113	1.11
	D:E Ratio	2.40	2.49		2.97	1.38	1.93	3.94
	Net Earnings	8,865	5,545		5,851	48,355	(1,954)	
1998	Total Debt	491,765	243,519		280,597	789,158	66,038	1.09
	D:E Ratio	1.97	1.65		1.20	1.18	1.91	3.78
	Net Earnings	37,734	6,355		16,322	18,209	3,914	
2000	Total Debt			895,067	373,158	987,015	90,522	0.76
	D:E Ratio			2.37	1.65	1.84	2.23	6.36
	Net Earnings			1,263	16,332	(90,704)	4,320	
2002[c]	Total Debt			935,708	369,131	740,058	96,359	1.80
	D:E Ratio			2.94	1.58	1.84	2.08	0.97
	Net Earnings			(20,900)	11,746	(92,159)	265	

a Agricore was created in 1998 when Alberta Wheat Pool (AWP) merged with Manitoba Pool Elevators (MPE).
b Due to limited financial information on Dairyworld, Current Ratio is shown in place of Total Debt.
c For 2002, the financial information for Agricore, UGG and Dairyworld is 2001 data.
Source: Goddard (2002); Agricore, Alberta Wheat Pool, Manitoba Pool Elevators, Saskatchewan Wheat Pool, and United Grain Growers Annual Reports, selected years

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