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A Neo-Institutional Assessment of Cooperative Evolution: Comparing the Australian Wheat Board and the Fonterra Dairy Group

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Introduction

For decades many agricultural markets in Australia and New Zealand utilized a "single desk" marketing policy, where the government granted monopoly marketing rights to a single institution. For the most part these single desk entities functioned like cooperatives with user-ownership, pooled marketing, user controlled boards of directors, and benefits distributed on the basis of use. Agricultural markets in both Australia and New Zealand are evolving away from single desk authority. The Australian Wheat Board (AWB) and New Zealand's Fonterra Dairy Group are interesting case studies of two different ways in which farmer-controlled marketing institutions are adapting to the loss of single desk marketing authority.

This paper proposes that the recent changes at AWB and Fonterra are strategic responses to changes in the food and fiber sector and to some of the inherent weaknesses of the cooperative structure. The structural changes at AWB have moved it closer to the share corporate model. Fonterra, in contrast, has incorporated aspects of the new generation cooperative structure and is attempting to leverage its members' equity by creating strategic alliances with dairy companies around the world.

Because the structural choices of AWB and Fonterra are different, we contend that their conduct and strategic direction are likely to be substantially different as well. The corporate structure adopted by AWB will almost inevitably move it away from a grower-focused business. Fonterra's future is less clear. Its ability to remain a major, grower-focused player in the international dairy market will depend on its success in managing its internal and external relationships. Specifically, can Fonterra successfully blend the differing corporate cultures of the New Zealand Dairy Group and Kiwi Dairies and, at the same time, deepen its alliances with such major dairy players as Nestle and Dairy Farmers of America. The jury is still out on both of these issues.

Changes at Fonterra and the AWB hold important lessons for American cooperatives. Because of the productive capacity of agriculture in New Zealand and Australia relative to their population, farmer-owned marketing businesses in both countries have long been much more dependent upon international trade than have their American counterparts. Given the increasing globalization of agricultural markets, it is important for U.S. cooperatives to understand developments at Fonterra and AWB.

Cooperative Weaknesses

Cooperatives have been an important means by which farmers have gained economic power, assured themselves of supplies and market outlets, and achieved varying degrees of vertical integration. Cooperatives are also believed to improve the overall functioning of markets (increasing their competitiveness) by offering farmers a "competitive yardstick" against

which to measure the performance of other firms (Nourse). Neo-Institutional economists (Cook; Royer) have identified a number of structural challenges that traditional cooperatives face. These structural challenges include: the portfolio problem, the horizon problem, the principal-agent issue, the equity sourcing issue, free-rider concerns, and influence-cost challenges.

Portfolio and Horizon Issues. The portfolio and horizon problems arise because of the illiquidity of cooperative investments. Ownership shares in traditional cooperatives are not transferable in a secondary market. Instead, the boards of directors of cooperatives usually determine when equity is returned to the purchaser. The horizon problem refers to the fact that the length of time a given member wants to be invested in a cooperative is unlikely to coincide perfectly with the length of time the board wants to hold that equity. The portfolio problem arises because members have a limited ability to change their cooperative investments in response to changes in their risk preferences. Both the horizon and portfolio issues provide incentives for members to minimize their investments in cooperatives.

The board of directors faces a second level portfolio problem. Two of the key functions for boards of directors are to safeguard the members' investment in the cooperative and to act as the representative for all members in determining the cooperative's strategic direction. The portfolio preferences of members are likely to vary quite significantly from younger farmers who may be more risk preferring to older ones who would be expected to want to safeguard whatever nest-egg's they have accumulated. Given their fiduciary responsibilities and the variety of risk preferences they represent, some argue that boards react by selecting only the most conservative investment portfolio available to them (Royer).

Principal-Agent issues. Principal-Agent concerns arise when the ownership (principal) and management (agent) of an asset are vested in different people who may have different goals or incentives. There is a long literature looking at executive compensation in corporations and one the more consistent results is that compensation is frequently related more closely to the size of the firm than to its profitability (Ciscel and Carroll; Llewellen and Huntsman; McGuire, et. al.; Masson; Prasad; Trechter and King). Thus, a manager of a firm owned by someone else, may have an incentive to increase the size of the business (via mergers or acquisitions, for example) even if profitability is sacrificed in the process. In stock corporations this issue is often dealt with using stock options, which give the manager the option to purchase company stock at a fixed price at some point in the future. If the manager guides the company in such a way that the stock price rises, his/her wealth is increased via the stock option. The stock option transforms the agent into a principal and, hopefully, aligns the interest of the manager and shareholders.

Stock options, which recent experiences in the U.S. (Enron, Tyco, General Electric) show, do not eliminate all principal-agent problems and are ineffective in cooperatives. Some agricultural cooperatives restrict membership to farmers so the manager may not qualify for stock in the cooperative. Even if the membership hurdle is cleared, traditional cooperative stock is non-appreciating and hence wouldn't solve this problem.

Equity sourcing issues. One of the key principles of cooperatives is that they are user-owned businesses. The people who use the business provide the equity needed to capitalize the

business. User-ownership is critical because it helps focus the cooperative on the interests of the users of the business. The amount contributed by each user in a cooperative should be roughly equal to their proportionate share of the business.

Cooperatives face two equity sourcing challenges. First, in a global market, firms need large amounts of capital in order to compete effectively and cooperatives have a smaller pool of potential investors (farmers) than do publicly traded share corporations. Second, traditional cooperatives must constantly re-new their equity (to ensure user-ownership) because stock cannot be transferred to anyone else. In contrast, once a share corporation sells a share of stock, it is under no obligation to repurchase that stock at any point in the future.

Free-rider challenges. Traditional cooperatives have both internal and external free riders. "Underinvested" members, those whose proportion of total equity is substantially less than their proportion of cooperative use, are internal free riders. External free riders are farmers who benefit from better market prices (generated by the competitive yardstick effect) and don't provide equity to the cooperative that helped produced them.

Influence Cost Issues. Many of the world's larger agricultural cooperatives were formed in the 1920s or 1930s and the farms they served were fairly homogeneous in terms of size and mix of enterprises. The farms served by each cooperative were also geographically concentrated and the needs of the members were similar and transparent.

Farms today are much larger and more specialised and cooperatives tend to serve much larger geographic regions. The interests and needs of the members have become more heterogeneous and, as a result, the potential for interest groups to develop has increased. If there is a less strongly felt common need, interest groups will try and influence the cooperative to serve their specific needs at the expense of the interests of other groups. When this happens decision-making becomes more difficult, individuals and groups are alienated and member loyalty to and satisfaction with the cooperative erodes.

While share corporations are not immune from influence cost problems, they are likely to be somewhat less severe. First of all, the objective of a share corporation is more straightforward – to maximize profits so that investors' wealth increases. In contrast, cooperatives have obligations to their investors and their consumers. Cooperatives have to generate profits in order to recapitalize themselves but their investors are also their customers who are interested in favorable prices for the goods and services they buy from or sell to the cooperative. Thus, there are differing interests competing for attention in a cooperative even at this basic level. Second, the voting rules in share corporations (one share-one vote) make influence cost problems somewhat more manageable. Institutional investors (pension funds, insurance companies, mutual fund managers, etc.) and wealthy individuals often own large blocks of shares, and hence votes in share corporations. Hence, when these businesses are faced with a contentious issue, it is easier for them to assemble a majority coalition than it is for a cooperative, which typically follows a one member-one vote rule. Finally, the inability to liquidate one's investment in a cooperative (see the horizon and portfolio issues above) exacerbates the influence cost issue. Individuals who don't feel their interests are being served by a share corporation, can sell their

stock and take their investment elsewhere. In a cooperative, ignored interests simply remain in the company as an ongoing source of disgruntlement.

Fonterra and the Australian Wheat Board

The Fonterra Group and the Australian Wheat Board (AWB) provide interesting examples of two very different approaches by cooperative or collaborative groups to the structural challenges of cooperatives. Their divergent paths have interesting implications for their farmer clients and the companies themselves.

The Fonterra Group

In a relatively short period of time, dairy marketing in New Zealand has gone from a sector fragmented into a number of competing cooperatives to one dominated by a single cooperative. In 1996 there were 14 dairy cooperatives operating in New Zealand (Zwanenberg, 2001). Today, there is one large cooperative, Fonterra Cooperative Group (Fonterra), and two small, regionally based cooperatives (Tatua and Westland) remaining in the New Zealand market. By 2000, Kiwi Cooperative Dairies (Kiwi) and New Zealand Dairy Group (NZDG) dominated the New Zealand dairy industry and were fierce competitors. The negotiations between Kiwi and NZDG that led to the creation of Fonterra were long and, apparently, contentious. Figure 1 summarises the process of consolidation.

Fonterra is now a major player in the New Zealand economy. According to the cooperative's website, Fonterra is the country's largest corporation, accounts for 7 percent of the country's GDP, earns approximately 20 percent of the country's foreign exchange, and is the fourth largest dairy company in the world (http://fonterra.com). Fonterra, through Kiwi Dairies and NZDG, owns a number of strong consumer brands (Anchor, Peters and Brownes, Tip Top). Fonterra has approximately 12,300 members and has production facilities in Brazil and Australia, in addition to those in New Zealand. It has rapidly expanded its influence in the Australian dairy market with the purchase of Australian Food Holdings, part of National Food and its current effort to expand its holdings of the Bonlac Cooperative from 25 percent to 50 percent. Fonterra is organized along traditional cooperative lines (user-ownership, user control on a one person-one vote basis, distribution of benefits according to use, etc.).

The primary motivations for the creation of Fonterra were to achieve costs savings and provide a more effective platform from which to compete in global dairy markets. Those promoting the merger identified two types of costs savings. First, rationalization of the supply chain was expected to generate substantial savings. Duplicative facilities and positions, for example, were to be eliminated under the merger, resulting in an estimated NZ$120 million in annual savings. Second, the merger was expected to enable Fonterra to realize economies of scale (http://fonterra.com/how/archive/business_case/benefits.html).

The merger to create Fonterra was expected to improve the ability of New Zealand's dairy industry to compete in international markets. Prior to the creation of Fonterra, the New

Zealand Dairy Board acted as a broker for the various cooperatives that collected and processed milk. By integrating the manufacturing and marketing functions within Fonterra, the merger was

Figure 3: Consolidation of the New Zealand Milk Market

1996	1997	1998	1999	2000	2001
Kiwi Dairies					
Tui Milk →	Kiwi Dairies	Kiwi Dairies	Kiwi Dairies		
Northland Co-op	Northland Co-op	Northland Co-op	*Northland Co-op* →		
Kaikoura Dairy	Kaikoura Dairy	Kaikoura Dairy	*Kaikoura Dairy* →	Kiwi Dairies →	
Tasman Milk	Tasman Milk	Tasman Milk	*Tasman Milk* →		
Marlborough Milk Ltd	Marlborough Milk Ltd	Marlborough Milk Ltd	*Marlborough Milk Ltd*		
					Fonterra Cooperative Group
Southland Co-op	*Southland Co-op* →	*South Island Co-op* →	New Zealand Dairy Group	*New Zealand Dairy Group* →	
Alpine Dairy	*Alpine Dairy* →				
Bay Milk Products	*Bay Milk Products* →	New Zealand Dairy Group			
East Tamaki	*East Tamaki* →				
New Zealand Dairy Group	New Zealand Dairy Group				
Tatua	Tatua	Tatua	Tatua	Tatua	Tatua
Westland	Westland	Westland	Westland	Westland	Westland

expected to further streamline the supply chain and improve the responsiveness of the New Zealand dairy industry to changing consumer demands.

The International Dairy Industry. As Table 1 indicates, Fonterra is a significant player in the international dairy market but is barely one-third the size of Nestle, the world's largest dairy company.

Table 1: Dairy Sales by Leading International Companies, 2000 (US$Billion)

Company	Dairy Sales
Fonterra Cooperative Group	5.0
Nestle	13.0
Dairy Farmers of America	7.7
Philip Morris (Kraft)	6.1

Data drawn from Zwanenberg (2001), page 29.

Table 2 shows that compared to the total size of the two share corporation competitors listed (Nestle and Philip Morris), Fonterra and the U.S. cooperative Dairy Farmers of America are relatively small corporations. Nestle and Philip Morris are substantially larger because they have many business lines in addition to their dairy interests, which not only give them some size advantages but also offers some risk reduction from diversification. In short, Fonterra's key corporate rivals have substantial resources available to them at the corporate level and are formidable rivals in the international dairy industry.

Table 2: Key Financial Characteristics of Leading International Dairy Companies, 2001 (US$Billion)

Company	Total Sales	Net Income	Total Assets	Equity
Fonterra Cooperative Group	6.4	-.01	5.4	2.1
Nestle	51.1	5.3	56.6	22.0
Dairy Farmers of America	7.9	.06	2.1	1.0
Philip Morris (Kraft)	89.9	15.7	85.0	19.6

Fonterra data drawn from the 2001-02 Annual Report, www.fonterra.com and converted at NZ$2.17075/US$1.00, which was the average exchange rate in May 2002, the date of Fonterra's annual report (www.x-rates.com).
Nestle data drawn from the 2001 Annual Report, www.ir.nestle.com and converted from Swiss Francs to U.S. dollars at 1.65661 francs/US$1.00, which was the average exchange rate in December 2001, the date of Nestlé's annual report (www.x-rates.com).
Dairy Farmers of America data drawn from the 2001 Annual Report, www2.dfamilk.com.
Philip Morris data drawn from the 2001 Annual Report, www.philipmorris.com.

Addressing Cooperative Weaknesses. Fonterra has addressed the weaknesses of the cooperative structure in much the same way as New Generation Cooperatives (NGCs). Table 3 summarizes the similarities and differences between traditional and new generation cooperatives.

Table 3: Traditional and New Generation Cooperatives

Traditional Cooperative	New Generation Cooperative (NGC)
User owned	User owned
User controlled	User controlled
Distributes benefits according to use	Distributes benefits according to use
Open membership	Defined membership
Voluntary use	Contractual relationship (delivery rights & obligations
Minimal initial investment	Large initial investment
Shares valued at par	Shares valued at market price
Focus on input supply & commodity marketing	Focus on value-added activities
Non-transferable stock	Transferable stock

Fonterra fits the definition of a new generation cooperative in most respects. First, as a cooperative, it is user-owned and controlled (with voting based on the amount of milk delivered rather than one person-one vote) with benefits distributed based on use. Fonterra is not strictly a defined membership cooperative because it must, generally, accept new suppliers. Fonterra has a contractual relationship with its producers who must own one share of cooperative stock for each kilo of milk solids to be delivered to Fonterra. The contractual relationship with Fonterra is less

binding than in a typical NGC in that there is no real penalty if the farmer provides less milk than his shares would entitle him to deliver. Instead, excess shares are either redeemed by Fonterra or converted to supply redemption rights, which can be converted to cooperative shares or cash in the future. As in American NGCs, the size of a producer's initial investment in Fonterra is based on the amount of milk to be delivered and the fair market value of Fonterra's shares. The fair market value of the cooperative's shares is determined by an independent valuer, and can, therefore, go up or down. The valuation, as with NGC stock, will reflect profit expectations for Fonterra. Clearly, Fonterra has a strong focus on producing differentiated products that generate consumer loyalty and price premiums. Finally, stock in Fonterra is transferable but only to one party, the cooperative itself.

Fonterra's structure deals with many of the classic cooperative shortcomings. Horizon and portfolio problems are reduced since members can cash out their investment in the cooperative if their life circumstances or risk preferences change. The terms of such equity sales depend on the valuation of Fonterra. Internal free rider issues are addressed by requiring investments in the cooperative proportionate to use of the cooperative. For example, because most New Zealand dairies practice seasonal milking (cows are dried off during the winter months), Fonterra experiences a classic peak load problem. To address this, Fonterra requires that dairies deliver milk during peak seasons hold additional capital (called Peak Notes) to finance the excess capacity. Because Fonterra is very nearly a monopoly, the external free rider issue is not significant.

Probably the most pressing issue for any cooperative striving to be a significant force in global markets is sourcing sufficient equity capital. The creation of Fonterra was the first step by the New Zealand dairy industry to address the equity sourcing issue. By amalgamating virtually all of the dairy cooperatives in New Zealand, they have created a company of a size comparable to most of their global competitors. The second element in Fonterra's apparent strategy is to leverage its members' equity by building strategic alliances with other dairy companies. Fonterra has joint ventures with both Nestle and Dairy Farmers of America. Bleeke and Ernst (1995) found that in successful strategic alliances both parties bring strengths to the table that the other partner cannot easily duplicate. The high level of efficiency of the New Zealand dairy industry has not been replicable elsewhere and Fonterra owns a number of valuable brands. Thus, Fonterra appears to have assets that are valuable to alliance partners.

The development of Fonterra did nothing to reduce or eliminate the potential for principal-agent issues. Indeed, over the past year the popular press in New Zealand has reported on a number of events suggesting principal-agent problems within Fonterra. For instance, the Sunday Star Times (Sunday, 22 September, 2002) reported that Fonterra's new board chair initiated efforts to assume greater control over day-to-day operations at Fonterra, actions consistent with principal-agent concerns.

Fonterra also has several influence cost issues with which to deal. First, shareholder discontent with Fonterra has been widely reported in the New Zealand newspapers. For example, the August 8, 2002 edition of the New Zealand Herald reported, "There was still an element of rivalry between the former (NZ) Dairy Group suppliers and those from Kiwi Dairies . . . " (www.nzherald.co.nz) The merger of two companies that historically were strong rivals is

frequently challenging because of differences in corporate cultures and the loyalty to the predecessor businesses. A related source of influence cost issues is driven by the sheer size of Fonterra. U.S. cooperatives have found that as they became larger and come to serve more geographically dispersed farmers, the unanimity of purpose that prompted cooperative formation in the first place tends to erode. As this unity of purpose declines, the incentives to develop interest groups increases. Finally, while creating international strategic alliance partnerships may address the equity sourcing issue, this may exacerbate influence cost problems. The needs of international partners may differ from what Fonterra members are used to and place additional demands upon them. Communications are at the heart of many of these influence cost issues. The complexity of a large, international business is great and changes rapidly. Fonterra's ability to keep its members informed and supportive of the strategic plan will be tested. At Fonterra's first annual meeting, the management and board were reportedly subjected to three hours of questions and criticisms and even those who supported the cooperatives efforts urged it to "do better, including in its public relations." (NZ Herald, September 13, 2002)

In conclusion, the creation of Fonterra has positioned the New Zealand dairy industry to be a significant player in the international dairy sector. Fonterra addresses many of the structural disadvantages that cooperatives have relative to share corporations but not all of them. Managing strategic alliances is difficult given the frequently shifting corporate objectives of the partners, changes in the marketplace, and the relative co-dependence of the partners. Given the importance that strategic alliance will play in leveraging the equity of Fonterra and allowing it to compete effectively in the global market, the cooperative's success in this arena must be closely monitored. Equally important is how effective Fonterra will be in managing the flow of information within the cooperative as a means of building loyalty to the cooperative and support for its strategic choices (Trechter, et.al., 2002). These influence cost issues have been particularly challenging during Fonterra's first two years of existence. In June 2003, Fonterra replaced its CEO with a former sugar-marketing executive, reportedly because the former CEO lacked "enough experience in international markets." (Waikato Times, 26 June 2003, www.stuff.co.nz)

The Australian Wheat Board

The Australian government established the Australian Wheat Board (AWB) in 1939 and gave it single desk authority export authority for wheat. In 2001 the company exported in excess of 15 million metric tons of wheat and had customers in over 40 countries.[1] The AWB accounts for 3 percent of total exports from Australia and 12 percent of the country's agricultural exports.[2]

Within the Australian context and the global wheat market, the AWB is a major player. Figure 4 shows that in 2001 AWB held the second largest share (17%) of sales in the global wheat market. However, as Table 4 illustrates, AWB is small compared to its major competitors when the overall size of the companies is considered. Cargill, for example, had nearly 50 times the volume of sales, more than 5 times as much profit, 25 times as many assets and 18.5 times as much net worth as AWB. Table 4 highlights the fact if at some point in the future Cargill and

[1] Australian Wheat Board, Annual Report, 2001, www.awb.com.au.
[2] Ibid, Australian Wheat Board, Annual Report

ConAgra are allowed to source bulk wheat from Australia, they will likely have the financial resources needed to enter and possibly dominate this market.

Figure 4: Share of World Wheat Market Sales, 2001

(Source: www.awb.com.au)

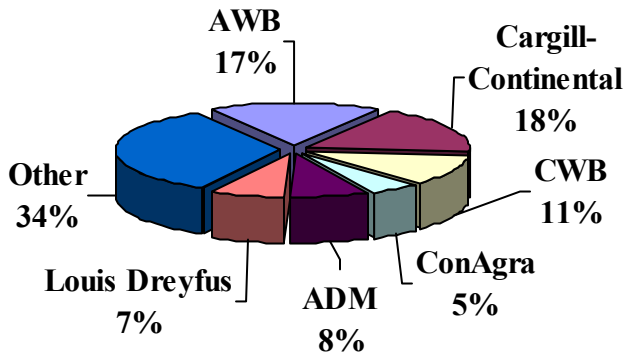

Table 4: Comparison of Selected Financial Characteristics for Grain Trading Firms, 2001 (US$Billions)

Company	Total Sales	Net Earnings	Total Assets	Net Worth
AWB	1.057	.066	1.071	.406
Cargill	49.204	.358	26.803	7.524
ConAgra	27.630	.683	16.481	3.983

Data for AWB drawn from www.awb.com.au converted at US$0.54=A$1.00. Data for Cargill drawn from www.cargill.com. Data for ConAgra drawn from www.conagrafoods.com.

While not formally constituted as a cooperative, AWB functioned very much like one (user-ownership, user control, and benefits distributed based on use) through most of its history. In July 1999, a significant transformation of the structure of the AWB was initiated, which culminated on August 22, 2001 when AWB was listed on the Australian Stock Exchange.

The new AWB ownership structure is very much like that of the new "Wyoming" cooperative model. As in the Wyoming model, the current AWB governance structure has both corporate and cooperative elements. AWB's class A stock can only be held by producers and these shareholders get to elect a majority of the board of directors with each Class A shareholder receiving one vote. Class B shareholders elect the remainder of the board and each shareholder has as many votes as he/she has shares, which is how other share corporations distribute voting rights. Profits generated by the investor-owned portion of AWB are distributed on the basis of investment while farmer members, for the most part, receive benefits in proportion to their use of the company.[3]

[3] Many farmers also own class B shares and this equity is rewarded in proportion to investment.

There were two primary motivations for the transformation of the AWB. First, the Australian Commonwealth government indicated through its competition policy that, over the medium- to long-term, it would no longer support single desk marketing authorities. Second, the board and management apparently felt the need to address some of the weaknesses of the cooperative business structure if they were going to survive in the highly competitive international grain trading market.

Addressing Cooperative Weaknesses. Listing on the Australian stock exchange allowed the AWB to address several of the cooperative structural weaknesses discussed above. Currently, farmers hold the vast majority of B-class stock – AWB estimates that 80 percent of 2002 interim dividends were paid to wheat growers. The fact that these shares trade on the Australian Stock Exchange means that farmers can liquidate that portion of their AWB investment whenever they choose, thereby addressing the horizon and portfolio issues. Listing on the stock exchange gives the AWB the ability to address principal-agent concerns using stock options on class B stock. While AWB does have an employee stock purchase program, their 2001 annual report indicated that they had not issued any stock options as of that time. One of the primary reasons for listing on the stock exchange was, almost certainly, to address the equity sourcing challenge. Listing on the exchange gives them access to equity from non-farm sources and, as noted, creates a more permanent form of equity since AWB is under no obligation to re-purchase shares they have sold to the public. Free riders are not an issue for AWB given that they currently have single desk authority, which eliminates the potential for free riders.

Listing on the exchange will not address the influence cost challenge. Indeed it will probably make it considerably worse. There has always been the potential for influence cost issues arising among the wheat farmers in AWB. For example, the interests of white wheat growers, concentrated in Western Australia are unlikely to line up perfectly with growers of prime hard wheat, who are concentrated in New South Wales and Queensland. When interests of subgroups within any collaborative group diverge, including AWB, there is an incentive for each subgroup to lobby the institution to pursue their particular interests.

The business relations that AWB has in Western Australia (WA) presents a second type of influence cost challenge facing the company. In March 2002 the farmer-owners of Cooperative Bulk Handling, which is the largest provider of grain storage and distribution services in WA, voted to merge with Grain Pool, the single desk marketing authority for barley and other small grains and oilseeds in that state. The merged entity maintained a cooperative structure, which is significant since the farmer-owners rejected a similar merger proposal the previous year that would have created a corporate structure for the resulting business. Reportedly, AWB was involved in the merger talks as well but the institutional complexity of a cooperative merging with a cooperative-share corporation hybrid was too great a hurdle to overcome. Most of the grower owners of the merged CBH-Grain Pool are also shareholders in AWB. Further, AWB and CBH-Grain Pool are currently strategic partners. CBH is responsible for assembling, storing and arranging transportation of wheat grown in WA, 80 percent of which AWB then pools and markets in international markets.

If single desk authority is taken away from AWB, CBH-Grain Pool may have a strong incentive to utilize their in-house marketing expertise developed marketing barley and other unprescribed grains (e.g. pulses) to become a direct competitor to AWB in the international wheat market. The potential for such a situation clearly gives AWB an incentive to have a storage and distribution system in WA that is under their direct control, a possibility that has been widely discussed in the newspapers in the state. Realizing this strategic direction, however, is complicated by the probability that AWB's wheat-farmer owners from WA would see the value of their investment in CBH-Grain Pool assets decline if AWB set up a rival system. Since farmers in WA typically supply up to 50 percent of the grain exported by AWB, the company cannot ignore their interests and concerns.

Added to these farmer-to-farmer interest group challenges, listing on the Australian Stock Exchange creates the potential for even more profound differences between farm and non-farm investors. The interests of non-farm investors in a share corporation are served when the profitability of the company increases, since this would be expected to increase both dividends and the share price. AWB's primary business is selling wheat in the very competitive international wheat market. While some product differentiation is possible in the wheat market, in large measure AWB is dealing in a "commodity". Commodities don't command premiums from consumers so it will be difficult for AWB to sustain increased profits by selling wheat at a higher price. The increased profits sought by non-farm investors can come from two other general sources: greater operational efficiency or lower product acquisition costs. AWB is reputed to be operationally efficient. Thus, lower product acquisition costs would seem to be the primary means of increasing profitability. The interests of farmers would obviously not be served by such a strategy. Currently farmers hold most of the AWB stock, so whether they realize a larger share of their income from their farm operation (via higher wheat prices) or from their dividend and capital gains generated by their stock in AWB may be somewhat moot. However, if in the future non-farmers hold more ownership this issue will loom ever larger.

Farmers also control the board of directors in AWB (with a mandated majority elected by A-stock shareholders), which gives them a high degree of control over strategic policy. Again, as more ownership moves to non-farmers, the impracticality of this institutional structure will become stark. Either non-farmer investors will demand and receive the right to control the board of directors or they will sell their stock in AWB driving down the share price and, hence, the wealth of those farmers still holding B-stock. An AWB controlled by non-farm, investor interests would likely pursue a different corporate strategy than if it remained under the control of farmers.

In short, AWB's decision to list itself on the Australian Stock Exchange addressed, or created the ability to address, most of the structural challenges facing cooperatives. The price that AWB may pay for this success is, however, likely to be eventual loss of farmer-control of the institution. Thus, this strategy may well serve the interests of AWB much better than it serves the long-term interests of Australian wheat farmers.

Implications and Conclusions

Institutional economists have identified a number of structural challenges that cooperatives have relative to share corporations. Cooperatives have, since their modern incarnation in Europe in the 1840s, evolved in response to changing social and economic conditions. The first English cooperative, established by the Rochdale Pioneers in 1844, for example, followed a principle of cash-only trading. Clearly, the more fully developed financial markets of today and user expectations make such a principle unnecessary and counter productive, so cash-only trading is no longer considered a cooperative principle. Ruttan's theory of induced innovation tells us that institutions, such a cooperatives, evolve in response to changes in such things as technology, cultural conditions or resource endowments. This paper argues that the changes observed at Fonterra and the AWB represent manifestations of Ruttan's theory.

The evolutionary pathways chosen by Fonterra and AWB, are starkly different from an institutionalist's perspective. Fonterra has retained the fundamental features of a traditional cooperative while attempting to deal with institutional shortcomings. The independent valuation of Fonterra combined with the ability of members to increase or decrease their investment in Fonterra by expanding or contracting their dairy operation goes some way toward addressing the horizon and portfolio problems. Their strategies of rationalizing the New Zealand dairy industry into virtually a single supply chain and seeking strategic alliances as a means of leveraging their members' equity, make intuitive sense. Fonterra's apparent strategy will likely succeed or fail based upon two things. First, how successful will the cooperative be in managing its strategic alliances? John Johnson, Chief Executive Officer of CHS, the second largest cooperative in the U.S., was recently quoted as saying his job is, "about relationship management more than anything else. (page 6A, The Country Today, September 18, 2002)". It is clear that relationship management should also be of paramount concern to Fonterra's leadership. Second, how successful will Fonterra be in managing influence cost problems within their membership? In particular, to be successful, the cooperative must develop communication practices that help their members understand the cooperative's strategic direction and the rationale for decisions that may have negative consequences, at least in the short-term, for some members. Recent articles in the New Zealand press suggest that the cooperative has a considerable distance to go in terms of their member relation efforts.

The evolutionary trajectory of AWB is likely to result in a company that may be successful but will probably not be user-controlled and focused. The fundamental interests of investors and farmers in a business that, at least currently, is dominated by commodity marketing are simply too diametrically opposed to co-exist harmoniously.[4] So long as the ownership share

[4] It should be noted that the AWB is investing in downstream businesses within its supply chain in an attempt to move beyond a nearly single-minded focus on grain marketing. Thus, AWB has recently invested in flour and milling activities in a variety of countries and freight chartering business.

of AWB held by farmers is overwhelming and single-desk authority remains in place, farmers and investors can co-exist in the current structure. However, as ownership shifts to non-farm interests, which seems inevitable, their demands on management to pursue less grower-friendly policies will grow. Single desk authority also partially masks internal influence cost issues such as the potential rivalry between AWB and the newly merged CBH-Grain Pool and between growers of different types of wheat.

There will be life in the new global agricultural market environment for the AWB and Fonterra. What these businesses look like and their strategic orientation are bigger, more interesting and more difficult questions. This paper has applied an institutionalist's perspective to the issues that will likely confront these two great companies. American cooperatives would be well advised to closely monitor events at AWB and Fonterra as harbingers of their own destinies.

Bibliography

Australian Wheat Board, Annual Report, 2001, www.awb.com.au.

Azzam, A. 1992, 'Testing the competitiveness of food price spreads', *Journal of Agricultural Economics* 43(May), 248-56.

Azzam, A. and Schroeter J.R. 1995, 'The trade-off between oligopsony power and cost efficiency in horizontal consolidation: an example from beef packing', *American Journal of Agricultural Economics* 77(November), 825-36.

Bhuyan, S. and Lopez, R.A. 1997, 'Welfare losses under alternative oligopoly regimes: the U.S. food ad tobacco manufacturing industries', *Journal of Agriculture and Applied Economics* 27(December), 577-87.

Bleeke, Joel and David Ernst, "Is Your Strategic Alliance Really a Sale", *Harvard Business Review*, January-February, 1995

Cargill, Incorporated and Consolidated Subsidiaries, Financial Highlights 1998-2002, www.cargill.com.

Cassels, J.M. 1933, 'Monopoly Influences', *Research in Prices of Farm Products*, Social Science Research Council, pp. 154-64.

Ciscel, David H. and Thomas M. Carroll (1980), 'The determinants of executive salaries: an econometric survey', *Review of Economics and Statistics* (Feb): 7-13.

Collins, Keith (2001), Statement before the U.S. Senate Committee on Appropriations, Subcommittee on Agriculture, Rural Development and Related Agencies, May 17, [Online], Available: http://www.usda.gov/oce/speeches/051701co.html.

Conagra Foods Annual Report, 2002, www.conagrafoods.com.

Cook, M.L. (1995), 'The future of U.S. agricultural cooperatives: a neo-classical approach', *American Journal of Agricultural Economics*, 77 (December), 1153-59

Dairy Farmers of America, Annual Report 2001, www2.dfamilk.com.

Fonterra Cooperative Group, Annual Report, 2001, http://fonterra.com.

Holloway, G. 1991, 'The farm-retail price spread in an imperfectly competitive food industry', *American Journal Agricultural Economics* 76(November), 979-87.

Kingwell, Ross, "Issues for Farm Management in the 21st Century: A view from the West", Agribusiness Review, Vol. 10, Paper 6, 2002 (www.agrifood.info/Review/2002v10/).

Koontz, S.R. and Garcia, P. 1997, 'Meat-packer conduct in fed cattle pricing: multiple-market oligopsony power', *Journal of Agricultural and Resource Economics* 22(July), 87-103.

Lewellen, Wilber G. and Blaine Huntsman (1970), 'Managerial pay and corporate performance', *American Economic Review* 60, 710-20.

McGuire, Joseph W., John S. Y. Chiu, and Albar O. Elbing (1962), 'Executive incomes, sales, and profits', *American Economic Review*, 52, 753-61.

Marion. B.W. and Geithman, F.E. 1995, 'Concentration-price relations in regional fed cattle markets', *Review of Industrial Organisations*, 10(February), 1-19.

Masson, Robert Tempest (1971), 'Executive motivations, earnings, and consequent equity performance', *Journal of Political Economy* 79, 1278-98.

Nestle Companies Annual Report, 2001, www.ir.nestle.com.

New Zealand Herald, various issues, www.nzherald.co.nz.

Nicholls, W.H. 1941, *A Theoretical Analysis of Imperfect Competition with Special Application to the Agricultural Industries*, Iowa State College Press, Ames, IA, USA.

Nourse, Edwin G. (1922), 'The economic philosophy of cooperation,' *American Economic Review*, 12, 577.

Philip Morris Company Annual Report, 2001, www.philipmorris.com.

Prasad, S. B. (1974), 'Top management compensation and corporate performance', *Academy of Management Journal*, 17, 554-58.

Royer, Jeffrey S. (1999), 'Cooperative organizational strategies: a neo-institutional approach', *Journal of Cooperatives*, 14, 44-67.

Ruttan, Vernon, W. (2002), 'Social science knowledge and institutional innovation', Department of Applied Economics, College of Agriculture, Food, and Environmental Science, University of Minnesota, Staff Paper P02-07, May, [Online], Available: http://agecon.lib.umn.edu/mn/p02-07.pdf

Sexton, R.J. 2000, 'Industrialization and consolidation in the U.S. food sector: implications for competition and welfare', *American Journal of Agricultural Economics*, 82(5), 1087-104.

Trechter, David and Robert P. King, `Executive Compensation Patterns and Practices in Minnesota and Wisconsin Cooperatives', *Journal of Cooperatives*, Vol 10, 1995.

Trechter, David, Robert P. King, and Laura Walsh, `Using Communications to Influence Member Commitment in Cooperatives', *Journal of Cooperatives*, Vol 17, 2002.

Waikato Times, 26 June 2003, www.stuff.co.nz.

Zwaneberg, Adrie, "Will Global Dairy Company be a True Cooperative," Food and Agribusiness Research, Rabobank International, April 2001.