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The Conversion of Diamond Walnut Growers

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Three aspects of property rights theory are particularly relevant to the conversion of the walnut-marketing cooperative, Diamond Walnut Growers (DWG), into a publicly traded stockholder-owned corporation. The horizon problem became apparent when DWG began investing heavily in branded, value-added products. The resulting need for additional member capital raised the free rider problem. The principal-agent problem was also relevant, given the increasing complexity of DWG's financing and marketing activities. An additional economic issue surrounding the conversion was the monopsonistic situation created when members signed long-term marketing agreements with the new firm that was maximizing shareholder value, rather than grower returns.

Introduction

On 1 July 2005, members of the walnut-marketing cooperative Diamond Walnut Growers (DWG) voted to convert into a publicly traded stockholder-owned corporation. The cooperative's history can be traced back to 1912, when chaotic marketing conditions led to the formation of the California Walnut Marketing Association. Its structure, however, changed substantially over its lifetime. As a federation of local walnut packing cooperatives, the California Walnut Marketing Association provided economic stability, but, in response to changing market conditions, in 1956 it became a centralized cooperative, changed its name to Diamond Walnut Growers, and built processing facilities in Stockton, CA to expand its production of shelled walnuts.

In the late 1990s, DWG became a more competitive supplier to American grocery chains by broadening its product line of culinary and in-shell nuts. Headquartered in Stockton, its 550,000 square foot processing facility was described at the time as the largest and most modern walnut processing facility in the world (Diamond Walnut Growers 2002). It also operated three smaller shelling plants in the San Joaquin Valley. At the time of its conversion to a publicly traded corporation, DWG was the leading marketer of culinary and in-shell nuts, with a 38.5 percent dollar-volume market share (Diamond Foods 2005a).

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DWG's Member Services department included a vice president and six regional field representatives. The cooperative utilized extensive quality control measures, paying shelling bonuses for deliveries with low levels of insect damage and off-grade nuts. Members were paid premiums for early deliveries of qualified in-shell varieties. The membership agreement included an exclusive marketing clause, whereby all walnuts produced by a DWG member had to be delivered to the cooperative. The cooperative maintained a strong government relations program, both at state and federal levels.

Description of the Industry

English walnuts are the major commercial type of walnuts grown in the United States, and California accounts for over 99 percent of the nation's commercial production. Between 1982 and 2007, walnut acreage in California increased 23 percent and production rose 39 percent (Pollack & Perez 2008). In 2006, over 4,000 walnut growers in five counties in the San Joaquin and Sacramento Valleys accounted for 63 percent of the state's total production (California Walnut Board 2007).

DWG's share of the state's walnut crop peaked at 58 percent in 1983, but then dropped sharply into the mid-40 percent range due to poor returns. When the conversion occurred, DWG's deliveries represented 46 percent of the state's walnut crop (Diamond Foods 2005a). Currently, there are 59 walnut handlers in California. Half of them provide only basic services, marketing only in-shell and shelled walnuts (California Walnut Board 2008a). Twenty-four have value-added products, such as vacuum packing, walnuts in consumer-friendly canisters, and walnut oil. Diamond Foods is the only handler that offers all these products. Only three other handlers have the canister packing capacity.

Between 2003 and 2007, walnut crop prices doubled, from US$1,160 per ton to US$2,320 (United States Department of Agriculture-National Agricultural Statistics Service 2008). Between 1997/98 and 2006/07, per capita consumption of walnuts in the U.S. rose from 0.36 pounds to 0.53 pounds (Pollack & Perez 2008). One of the major factors contributing to the strong demand is recent findings regarding the health benefits of walnuts. They are one of the most nutrient-dense whole food sources of alpha-linolenic acid (ALA), an essential omega-3 fatty acid that may help reduce the risk for heart disease, cancer, stroke, diabetes, high blood pressure, obesity, and clinical depression (California Walnut Board 2008b).

Walnut imports have been minimal, accounting for less than 1 percent of the total U.S. supply in 2006/07 (Pollack & Perez 2008). Conversely, walnut exports have been rising. For most of the 1980s, they comprised about 25 percent of the utilized crop production. During the last five marketing years, however, they have accounted for 45-65 percent of the utilized crop production. The leading export markets are

Canada, Germany, Japan, Korea, and Spain (California Walnut Commission 2008). During the 2003/04 marketing year, DWG's exports (excluding Canada) accounted for 27 percent of its net sales (Diamond Foods 2005b). All the growth in California's walnut exports is attributable to shelled walnuts, rather than unshelled walnuts. In 2006, shelled walnuts accounted for 30 percent of California's walnut exports (California Walnut Commission 2008).

Two mandated commodity programs support the industry. The California Walnut Board was established through a federal marketing order in 1948. It is responsible for maintaining product quality through grades and standards, providing supply and domestic market information, managing crop production research, and directing generic domestic market promotion. The California Walnut Commission, established by the California legislature, is responsible for export market development. Both groups are comprised of walnut growers, handlers, and a public member. Since DWG's conversion, the only cooperative remaining in the walnut industry is the California Walnut Bargaining Association. However, it has maintained a low profile and possesses only a small membership (California Walnut Bargaining Association 2005).

Description of the Conversion

DWG's Changing Structure

Michael Mendes was hired by DWG in 1991 and served in various sales and marketing positions before becoming DWG's president and CEO in 1998 (Diamond Foods 2005a). Shortly thereafter, the cooperative began making changes that moved it away from the traditional cooperative structure. One major change occurred in 1998, when the board dropped its policy to retain 3.5 percent of members' annual proceeds. Typically, these retained funds were revolved to members after five years. At the time, crop retains totaled US$14.6 million, along with US$16.2 million in working capital retains (repaid within 15 months) and US$7.6 in unallocated earnings for a total member equity of US$38.4 million. DWG replaced member equity capital by creating a wholly owned subsidiary, Diamond Walnut Capital Trust, that issued US$15.0 million in cumulative securities at a 7.2 percent cumulative preferred dividend rate to an institutional investor (Diamond Walnut Growers 1998). Mandatory redemptions of the cumulative securities and loans were scheduled for 2009, 2010, and 2011 at US$5 million each.

DWG engaged in extensive brand-building efforts. In 2002, DWG introduced its line of Diamond glazed nut products, such as apple-cinnamon glazed walnuts and pecan pie glazed pecans. Between 1999–2000 and 2004–2005, DWG's consumer retail sales rose from US$95 million to US$186 million (Diamond Foods 2005b).

Table 1. DWG's Financial Results, 2000–2004 in US$

	Fiscal Year Ending July 31					Average
Measure	**2000**	**2001**	**2002**	**2003**	**2004**	**2000-2004**
Member deliveries (million lbs)	257.4	218.8	279.0	252.1	297.4	260.9
Net proceeds/lb	$0.471	$0.618	$0.596	$0.600	$0.605	$0.578
Average independent price /lb	$0.408	$0.623	$0.569	$0.555	$0.565	$0.544
DWG's premium /lb	$0.063	($0.005)	$0.027	$0.045	$0.040	$0.034
Diamond's advertising expenses ('000)	$6,327	$9,720	$9,105	$8,744	$14,673	$9,714
Diamond's advertising expenses/lb	$0.025	$0.044	$0.033	$0.035	$0.049	$0.037
Nonpatronage earnings ('000)	$1,229	$2,491	$2,072	$1,827	$40	($6,545)

Source: Diamond Foods 2005a; Diamond Walnut Growers 2005b.

In August 2004, DWG launched its Emerald of California snack nut line nationally, with flavors such as glazed chocolate brownie walnuts and mixed nuts (the latter requiring the purchase of other nut varieties). With this move, DWG became a competitor in the snack nut industry. As DWG noted in its filings with the Securities and Exchange Commission (SEC), the snack nut market has historically had one leader, Planters, and a fragmented group of regional and national competitors, such as Fisher Nuts (Diamond Foods 2005a).

DWG's financial performance data during its last five years are displayed in table 1. DWG's members earned a premium over the independent handlers' average price during eight of its last ten years as a cooperative. After DWG began broadening its product mix in 1999, its annual price premium averaged US$.034/pound. Its returns to members were lower than the average price paid by independents only once—a US$.005/pound shortfall in 2001, which followed the highest premium paid (US$.063/pound) in 2000. These premiums occurred despite DWG's sizable advertising expenditures.

The Conversion Process

Diamond Foods was created on 14 February 2005, when it filed for incorporation in Delaware as a wholly owned subsidiary of DWG. During its 22 March 2005 meeting, DWG's board unanimously approved the conversion of DWG into a stockholder-owned corporation by merging with and into Diamond Foods. Two days later, Diamond Foods filed a preliminary prospectus for an initial public offering (IPO) of its common stock with the SEC as part of its proposed conversion to a stockholder-owned corporation. The key aspects of the proposed conversion and stock offering were:

- A maximum of 8,060,207 shares of Diamond Foods common stock would be issued to DWG members, allocated in proportion to each member's patronage during the two crop years with the highest value for the member out of the previous six crop years. Up to US$18.6 million (1.3 million shares, based on the estimated IPO price of US$15 per share) would be paid to DWG members who elected to receive cash in lieu of stock, for an estimated total compensation of US$119.7 million. The stock would be freely tradable on the NASDAQ after a 360-day holding period.

- DWG members would receive their working capital retains (US$41.7 million) in cash and Diamond Foods would retain US$17.5 million in unallocated earnings, less the US$6.5 million loss during 2004–2005.

- Diamond Foods expected to sell 5,333,333 shares of common stock in an IPO and raise an estimated US$70.9 million in net proceeds. Approximately US$17.1 million of these funds would be used to pay off a long-term loan. The balance of the proceeds from the IPO would be used primarily to develop and market value-added products and install new equipment to gain processing efficiencies.

- Three of the 13 members of DWG's board would be appointed to Diamond Foods' nine member board, as companies listed on the NASDAQ are required to have a majority of outside directors on their boards. The other "inside" director would be DWG's president and CEO, Michael Mendes. A Grower Executive Council would be comprised initially of the ten members of the DWG board who did not transition to the Diamond Foods board. It would provide input solely in an advisory capacity regarding walnut grading and overall grower support and service.

- Independent of their vote whether to keep or sell their Diamond Foods stock, DWG members would be offered marketing agreements for their walnuts (Diamond Foods 2005a).

Communications made by DWG to its members regarding the proposed conversion included:

- On 24 March 2005, Chairman Gilbert and CEO Mendes sent a letter notifying members of the proposed conversion. Gilbert and Mendes stated that the conversion would strengthen Diamond financially and convert members' interests into marketable stock shares.
- During mid-April 2005, DWG held three regional grower meetings.
- DWG's spring/summer 2005 member magazine, Diamond News, included a one-third-page article about the proposed conversion (Diamond Walnut Growers 2005a).
- On 16 June 2005, Chairman Gilbert sent a letter with voting materials, a disclosure statement (114 pages, plus financial statements), and the Walnut Purchase Agreement.
- On 17 June 2005, the DWG board sent a letter reiterating the importance of reading the disclosure statement and the need for additional capital resources.
- On 23 June 2005, Chairman Gilbert replied to a letter sent by Concerned Diamond Walnut Growers on 15 June (described below).
- From 28 to 30 June 2005, DWG held three regional meetings (Diamond Foods 2005b).

In accordance with DWG's recently revised bylaws, votes for the conversion proposal were allocated to members based on their share of total walnut deliveries during the two preceding crop years. There were 1,735 members entitled to cast a total of 284,781 votes, with DWG's board members holding 11 percent of the votes.

On 1 July 2005, over 80 percent of DWG members voted to approve the conversion at a special meeting. On 20 July 2005, Diamond Foods announced an IPO of 6 million shares of its common stock at a price of US$17 per share. During the first week of trading, share prices ranged between US$20.50 and US$22.10.

Key Individuals in the Conversion

DWG's CEO was a key individual in the conversion. Sam Keiper, vice president for grower relations and corporate affairs, and the board chairman, John Gilbert, had significant interaction with members during the conversion voting process. Additionally, DWG hired Seth Halio in January 2005 to serve as executive vice president and chief financial officer and work closely with the external agents involved in the preparation of the public stock offering. Halio had previously worked with Steven Neil, who was appointed to the Diamond Foods board. External agents included a San Francisco-based legal firm, Fenwick & West, LLP, and three investment banker underwriters, with Merrill Lynch as the lead.

Forty DWG members, identifying themselves as Concerned Diamond Walnut Growers and led by Jay Columbini (brother of a DWG board member), sent a mailing to DWG's membership on 15 June 2005. Their concerns about the proposed conversion included:

- Loss of member control. Although DWG members would initially hold at least 60 percent of Diamond Foods' stock, they would be a minority on the new board.
- Significant financial gains for DWG's management and directors. They would receive over US$14 million in stock grants and options.
- An inferior marketing contract. If DWG members signed the marketing contract, they would provide working capital to Diamond Foods without interest, but the market price that they would be paid would be determined approximately six months after they delivered their walnuts.
- Shift in focus from grower returns to shareholder returns (Concerned Diamond Walnut Growers 2005).

Conceptual Framework

Property rights theory provides the conceptual framework for analyzing the conversion of DWG from a cooperative into a publicly traded stockholder-owned corporation. Three aspects of property rights are particularly relevant when evaluating cooperative conversions: the horizon problem, the principal-agent problem, and the free rider problem. Compared to investor-owned firms (IOFs), cooperatives have ambiguities in the structure of their property rights that can create these problems, which, in turn, may cause some cooperatives to transition into other organizational forms. Porter and Scully (1987) examined the impact of these problems on the efficiency of agricultural cooperatives, while both Cook (1995) and Fulton (1995)

extended the property rights framework to analyze structural changes in cooperatives.

Investors in IOFs are entitled to dividends generated by an asset, and the residual earnings are capitalized into the value of their stock. The horizon problem occurs in a cooperative because the members are both the users and owners of the firm's assets. They have a residual claim to the earnings generated by an asset only as long as they are patrons of the cooperative, although the asset may have a longer productive life. A cooperative's net earnings are distributed to members in proportion to their patronage, rather than as a return on their investment. Claims on its assets cannot be capitalized and transferred by members. Thus, members seek to maximize their proceeds from the cooperative in the current period rather than invest to increase their net cash flows in the future. The horizon problem leads to underinvestment in assets, particularly intangible assets, such as brand development and market development (Porter & Scully 1987).

The free rider problem occurs when property rights are not transferable or unassigned. Cook (1995) notes that the free rider problem can emerge when new members (or even non-members) are entitled to the same patronage and residual rights as existing members. This effectively reduces the rate of return of existing members' investment and creates a disincentive for them to invest further. Thus, new members are able to act opportunistically by under-investing in their cooperative.

Porter and Scully (1987) note that in a cooperative, the decision-control and risk-bearing functions rest with the members, while decision-management rests with the management. As principals, the members incur transaction, decision, information, and contract monitoring and information costs. This relationship can result in a principal-agent problem if the agent's decisions are not easily observable and the agent has more information. Because producer-members govern most cooperatives exclusively, this is more likely to occur when a cooperative goes beyond being a commodity supplier and engages in marketing value-added products (Hardesty 2005). Without any publicly traded stocks, there is no information available to the principals (the members) to evaluate the performance of the agent (the management). This information asymmetry creates a governance problem. Furthermore, Fulton and Lang (2006) note that the principals and agents may have divergent interests. Typically, the membership's objective is to ensure grower returns, while the interests of the management could be to pursue their own goals, such as high compensation levels and perks.

Analysis of the Conversion

The horizon problem, free rider problem, and principal-agent problem are all applicable to the conversion of DWG. These problems motivated DWG's members and/or the management to favor conversion.

The horizon problem was particularly significant in influencing the conversion of DWG. It was not especially relevant when DWG was a marketer of commodity nuts. However, after DWG experienced large decreases in its domestic sales of consumer shelled walnuts during the 1980 and early 1990s, it addressed this situation by providing a full line of culinary nut products to strengthen its competitive position with retailers (Diamond Foods 2005a). When it entered the higher-margin snack food market by launching the Emerald brand of glazed nut products and savory nut mixes, DWG incurred significant expenses in advertising and "slotting fees" to gain distribution. It needed capital for these intangible assets.

However, DWG cited two financial factors leading up to its proposed conversion that demonstrate the presence of a horizon problem:

- Significant member resistance to crop retains caused DWG to seek sources to finance its growth.
- "Because the cooperative requires annual distribution of net proceeds of the business, and there is no ownership interest to reward long-term appreciation in the value of the enterprise, cooperative members have an incentive to encourage maximum cash distributions each year and have no incentive to encourage investment for future growth" (Diamond Foods 2005a, p. 6).

Given the presence of a horizon problem, cooperative members approaching retirement age or planning to change crops would be particularly likely to undervalue long-term investments. No data were available regarding the age distribution of DWG's membership, but SEC filings indicate that the ages of DWG's board ranged from 42 to 78, with an average age of 58. Thus, it would not be inappropriate to state that the DWG board would have found the conversion to be financially attractive because it enabled them to capitalize the value of DWG's recent and anticipated investments in market development. This is consistent with Fulton's (1995) assertion that a cooperative conversion indicates that members are seeking benefits only as investors, rather than as users.

The free rider problem is also related to members' reluctance to invest in their cooperative. For example, DWG could attract new members if its market development efforts were successful in increasing member returns. The new members would benefit from the investments made in intangible assets by existing members. DWG did not have a mechanism, such as tiered delivery rights, that would have

required new members to purchase delivery rights to participate in the earnings for DWG's higher margin products.

The principal-agent problem relates to DWG's increasing complexity, particularly with its financing and marketing activities. As previously noted, members of cooperatives do not have the external exchange of information to assess management's performance and proposals. Most members, including some board members, did not have the expertise to assess the soundness of management's proposals regarding preferred trusts and marketing programs.

It is also likely that most members did not have the expertise to assess the long-term implications of the proposed conversion of DWG. This manifestation of the principal-agent problem was compounded by the fact that they had only 100 days to consider the conversion proposal. Members voted on the conversion without knowing how much compensation they would receive for their current ownership in Diamond Walnut because of the uncertain value of the common stock they were to receive. The estimated IPO price of US$15 per share used in the preliminary registration filings yielded US$119.5 million in compensation. But the IPO could have occurred with a share price as low as US$5, in which case members would have received only US$40.3 million for their ownership interest in Diamond Walnut (Diamond Foods 2005a). (Based on the actual IPO price of US$17, the aggregate value to members for the shares and cash paid in the conversion totaled US$154.3 million, thus exceeding expectations.)

DWG's members also needed to determine whether the estimated payment of US$119 million in stock and cash was a fair offer for losing their rights to price premiums for their future walnut deliveries. That 95 percent of DWG members signed marketing agreements with Diamond Foods for an average term of five years (Van Konynenburg 2008) suggests a principal-agent problem. Members were sent copies of the marketing agreement along with the SEC filing documents. They had the option to extend their existing DWG marketing agreement by three, five, or ten years, and were required to deliver their entire crop to Diamond Foods for the duration of the contract. No set price was offered. Instead, the agreement specified, "Each March (following the harvest), Diamond Foods will determine a purchase price based on market conditions, quality, variety and other relevant factors" (Diamond Foods 2005a, pp. 36–37). The agreement's four-payment schedule, the last one occurring 15 months after delivery, was very similar to DWG's historical payment structure.

Members who signed the marketing agreement placed themselves into a monopsonistic situation. The contract offered no price protection or guarantee to pay market prices. Instead, the monopsonistic relationship made the contracting growers vulnerable to price manipulation. When attending a grower meeting organized by University of California Cooperative Extension farm advisors in May 2005, some

growers made comments that indicated that they did not understand that the marketing agreement was a separate decision from their conversion vote and/or that they would no longer be receiving the firm's net proceeds. The conversion caused Diamond Foods' mission to shift from "delivering annual net proceeds to members to maximizing long-term shareholder value" (Diamond Foods 2005a, p. 18). While DWG members who became shareholders of Diamond Foods could benefit from dividends and stock appreciation, they could also be adversely impacted as suppliers by Diamond Foods' strategy to maximize shareholder value by improving gross and operating margins.

Conclusions

Four years have passed since DWG's conversion. Diamond Foods has consistently paid a quarterly dividend, which started at US$0.03/share and has since risen to US$0.045/share. Its share price has fluctuated considerably, but has trended upward in 2008 and traded between US$24 and US$30 during the past quarter. However, some DWG members who signed marketing agreements are dissatisfied with the outcome. In September 2007, 42 former members organized to consider filing a lawsuit based on a belief that they were underpaid by at least 13 percent for their 2005 and 2006 walnut crops (Van Konynenburg 2008).

DWG's conversion appears to have been beneficial for members who were approaching retirement age. It enabled them to capitalize their investment in building DWG's branded program and line of value-added culinary and snack nut products. However, DWG's horizon problem, as well its free rider problem, could both have been addressed by issuing or selling tiered delivery rights to members while maintaining the cooperative structure. For example, members with the highest value delivery rights would be entitled to earnings from the "snack nut" pool, while members holding the second highest value delivery rights would be entitled to earnings from the value-added "culinary nut" pool. New members would have to purchase delivery rights to participate in the earnings from these pools. When members retired or changed crops, their delivery rights would be sold to other members, with the price reflecting the pool's past and projected performance. Delivery rights would protect the investments that members made in advertising and other market development efforts.

The principal-agent problem is less easily addressed. Assessing marketing strategy and complex financing proposals requires specialized expertise that most walnut growers are not likely to have. DWG's principal-agent problem did not surface overnight, but rather evolved over many years as members became less involved in the governance of their cooperative and had minimal interaction with their board members, particularly when the cooperative undertook more complex strategic is-

sues. It may be necessary for boards of cooperatives engaged in marketing value-added products and other complex business strategies to hire technical advisors to assess such arrangements from the members' perspective and share their opinions with members. The financial audit firms hired by cooperative boards do not serve in such a proactive capacity. Some cooperatives' boards have one, even two outside directors. They need to have a stronger commitment to membership than to management in order to maintain a healthy tension between principals and agents.

As strategic issues faced by cooperatives have become more complex, new mechanisms need to be developed to resolve the imperfect property rights inherent in the cooperative structure. Strong member participation and leadership, as well as close working relationships with university academics knowledgeable about cooperatives, marketing, and finance, would be beneficial to fostering such innovations.

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