University of Richmond
UR Scholarship Repository

Finance Faculty Publications | Finance

Fall 2010

Maintaining a Flexible Payout Policy in a Mature Industry: The Case of Crown Cork and Seal in the Connelly Era

James Ang

Tom Arnold
University of Richmond, tarnold@richmond.edu

C. Mitchell Conover
University of Richmond, mconover@richmonde.edu

Carol Lancaster
University of Richmond, clancast@richmond.edu

Follow this and additional works at: http://scholarship.richmond.edu/finance-faculty-publications

Part of the Business Administration, Management, and Operations Commons, Corporate Finance Commons, and the Finance and Financial Management Commons

Recommended Citation

Ang, James; Arnold, Tom; Conover, C. Mitchell; and Lancaster, Carol, "Maintaining a Flexible Payout Policy in a Mature Industry: The Case of Crown Cork and Seal in the Connelly Era" (2010). *Finance Faculty Publications*. 9.
http://scholarship.richmond.edu/finance-faculty-publications/9

This Article is brought to you for free and open access by the Finance at UR Scholarship Repository. It has been accepted for inclusion in Finance Faculty Publications by an authorized administrator of UR Scholarship Repository. For more information, please contact scholarshiprepository@richmond.edu.

Maintaining a Flexible Payout Policy in a Mature Industry:
The Case of Crown Cork and Seal in the Connelly Era

James Ang, *Florida State University*, and Tom Arnold, C. Mitchell Conover, and Carol Lancaster, *University of Richmond*

Surveys of CFOs suggest that the desire for financial flexibility is among the most important considerations in deciding on corporate capital structure.[1] And especially for companies with less predictable earnings and cash flow, limiting leverage and dividend payments is one way of maintaining financial flexibility.[2] One of the disadvantages of cash dividends is that they effectively commit the firm to an indefinite series of future payouts. Once a regular dividend has been established, managers are very reluctant to cut or eliminate them in the future.

On the other hand, the fact that most mature firms pay cash dividends, and most pay them regularly, suggests that dividend payments play a valuable role in the economy.[3] To the extent they represent a long-term commitment by management, dividends help even the informational playing field between management insiders and outside shareholders.[4] And perhaps most important, cash dividends are a way of limiting the temptation and ability of corporate managers in mature businesses to waste "free cash flow"—cash generated by the business that cannot be profitably reinvested inside the firm.[5]

But dividends are not the only way to return such free cash flow to shareholders. Stock repurchases offer several advantages over cash dividends as a way to accomplish the same task. Perhaps most important, stock repurchases preserve flexibility since they do not commit the firm to a future payout level, and such flexibility is especially valuable when future profitability is uncertain.[6] Stock repurchases also have the benefit of increasing the relative ownership stakes of managers who are also owners, thereby

---

[1] Graham, J.R. and Harvey, C.R., 2001. The theory and practice of corporate finance: evidence from the field. *Journal of Financial Economics* 60, 187-243

[2] DeAngelo, H., DeAngelo, L., 2007. Capital Structure, Payout Policy and Financial Flexibility. Working Paper, USC Marshall School of Business. Blau, B.M., Fuller, K.P., 2008. Flexibility and dividends. *Journal of Corporate Finance* 14, 133-152

[3] For comprehensive discussions of dividend policy and empirical evidence, see Ang, J., 1987. *Do dividends matter?* A review of corporate dividend theories and evidence. Monograph Series in Finance and Economics.

[4] Bhattacharya, S., 1979. Imperfect information, dividend policy, and the bird in the hand fallacy. Journal of Economics 10, 259-270. John, K., Williams, J., 1985. Dividends, dilution, and taxes: a signaling equilibrium. Journal of Finance 40, 1053-1070. Miller, M.H., Rock, K., 1985. Dividend policy under asymmetric information. *Journal of Finance* 40, 1031-1051.

[5] Rozeff, M., 1982. Growth, beta and agency costs as determinants of dividend payout ratios. *Journal of Financial Research* 5, 249-259. Easterbrook, F., 1984. Two agency-cost explanations of dividends. *American Economic Review* 74, 650-659. Jensen, M.C., 1986. Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review* 76, 323-329.

[6] Lie, E., 2005. Financial flexibility, performance, and the corporate payout choice. *Journal of Business* 78, 2179-2202.

strengthening the alignment of interests between management and outside shareholders.[7] What's more, a consistent repurchase policy sends important information to the stock market about what management believes, given that managers with much of their own wealth invested in the firm will not volunteer to overpay for shares.[8] Finally, repurchases also offer benefits to shareholders by subjecting investors to a lower capital gains tax rate and allowing them to time their own taxable gains.[9]

Despite all these advantages, however, it is difficult to show empirically that share repurchases are better for companies and their shareholders than regular cash dividends. Few companies have remained committed to a no-cash dividend policy for long time period. And to demonstrate that it can be done for "the right reasons," researchers need to find examples of companies whose no-dividend policies reflect the deliberate, unforced, long-term choices rather than the usual constraints that cause companies to suspend or fail to initiate dividend: namely, poor operating performance, high debt, or strong growth prospects with limited ability to raise outside capital.

As related in these pages, the history of Crown Cork and Seal (hereafter known as "Crown") provides us with a case of a company that stopped paying dividends but establish a disciplined share repurchase policy and did so for all the *right* reasons. Under family ownership in the 1950s, Crown lost market share and was on the brink of bankruptcy when its largest shareholder, John Connelly, was elected chairman of the board in 1957. Under John Connelly's leadership, the firm restructured its operations and began a payout policy based solely on stock repurchases. During the Connelly era, the firm did not pay a penny of common dividends, which is remarkable for a mature firm in a slow growth industry.[10] Using share repurchases instead, Crown managed the agency and information problems that beset public companies with outside shareholders.

In what follows, we show how a flexible payout policy can result in superior returns to shareholders over three decades. When faced with declining prospects in its industry, Crown pursued a focused and disciplined growth strategy. Crown's high degree of managerial ownership resulted in more focused investments than the diversification strategies pursued by Crown's competitors.[11] To fund its acquisitions, the firm used

---

[7] Kahle, K., 2002. When a buyback isn't a buyback: open market repurchases and employee options. *Journal of Financial Economics* 63, 235-261. Allen, F., Michaely, R., 2003. Payout Policy. In Constantinides G., Harris, M., Stulz, R. (Eds.), North-Holland Handbook of Economics; Amsterdam: North-Holland.

[8] Vermaelen, T., 1984. Repurchase tender offers, signalling and managerial incentives. Journal of Financial and Quantitative Analysis 19, 163-181.

[9] Constantinides, G.M., 1984. Optimal stock trading with personal taxes. Journal of Financial Economics 13, 65-89.

[10] The duration of Crown's no-dividend policy is unusual for NYSE firms. Using CRSP data, there were 4911 firms in total over the Connelly era. Of these, 302 were listed for the entire period 1957-1990. Of these 302, only four did not make any cash dividends during the entire period. They are LVI Group, Publicker Industries, United Park City, and Crown Cork and Seal.

[11] This is consistent with findings elsewhere. See for example, Denis, D.J., Denis, D.K., Sarin, A., 1997a. Agency problems, equity ownership, and corporate diversification. Journal of Finance 52, 135-160.

internally generated cash flow, avoided external financing, and maintained very low levels of leverage. Crown's flexible financial policy allowed the firm to pursue value-increasing investments that represent the legacy of the Connelly era (and whose payoffs are depicted graphically in Figure 1).

Data

The data for this study was collected from several sources. The company's financial statements were prepared using Compustat and company annual reports. Proxy statements were obtained from the company and the Securities and Exchange Commission to collect information on ownership, compensation, and board composition. Financial statement information on Crown's three competitors and their lines of business were recorded from Compustat, *Moody's Industrial Manual,* and from their annual reports. The Center for Research in Security Prices (CRSP) database was used to obtain common stock returns, dividends, stock prices, stock dividends, and stock splits. Stock repurchase data were obtained from annual reports. Compensation data for Crown and its competitors were obtained from *Business Week* and *Forbes* special issues on executive compensation. The history of Crown was compiled using Crown annual reports, a Harvard Business School Case, Forbes and Fortune profiles, and other sources.[12]

We examine Crown's policies over the 33-year reign of its CEO, John Connelly. Connelly started as CEO in 1957 and stepped down in 1989. He remained chairman of the board until early 1990. We used data from Crown and its competitors to judge the success of Crown's policies. But our comparative analysis of Crown and its competitors metal can industry ends in 1984,[13] as those competitors either went private or were acquired by other firms.

Early History

William Painter founded the Crown Cork and Seal Company in 1892. Its primary business was the manufacture of crowns (pop off bottle caps) and closures (screw off bottle caps). Painter had invented a metal bottle cap with a cork seal that was known as a "crown cork." In 1927, Crown was merged with a firm owned by Charles McManus Sr. Crown flourished under McManus's direction, expanding internationally and eventually producing half the bottle caps sold worldwide. The company made an early entry into tin cans, which later became one of its principal products. By the time McManus died in 1946, he left a profitable and healthy company to his heirs.

With the death of McManus, management of the company was passed on to John Nagle, a lawyer and McManus's personal secretary. McManus's widow and his sons,

---

[12] The primary sources for the firm's early history are: 1) Bower, Joseph L., 1972, Crown Cork and Seal Company and the Metal Container Industry, Harvard Business School Case Studies 373-077, 1-23; 2) Sturm, P.W. "The Uncanny Can Company." *Forbes* (September 17, 1979), 160,164; and 3) Whalen, R.J. "The Unoriginal Ideas That Rebuilt Crown Cork." *Fortune* (October 1962),118-164.

[13] To provide an industry comparison over Connelly's entire era, we also construct a can and bottle industry index for Figures 1 and 2.

Charles Jr. and Walter, retained a 25% ownership interest in the firm. In the years immediately following World War II, the firm enjoyed a healthy market for its crowns due to increased demand for bottled beverages. From 1945 until 1948, Crown's net profits nearly doubled from $2.4 million to $4.5 million.

During Nagle's tenure, however, the company was poorly managed and beset by inefficiencies. The company was divided along product areas, with the divisions frequently competing with each other. Each factory was equipped with full accounting and finance staffs. From 1953 to 1955, Crown added 385 managers to fill the roles required by the duplication of staff. Mismanagement resulted both in falling company morale and profit margins. (Figure 2 shows the decline in operating efficiency, as measured by operating profit margin.)

At the same time, the firm also faced external challenges. Metal crown sales accounted for roughly half its sales and the firm had half the worldwide market for them. From 1939 to 1947, industry production of metal crowns increased at an average rate of 22% a year. As metal cans gained in popularity at the expense of glass bottles, the firm suffered, however. From 1954 until 1958, the growth of metal crown production averaged only 0.7% a year while metal can production increased at about 10%.[14] Crown had diversified into metal cans but that industry had low profit margins, thanks to the dominance of large, high volume competitors like American Can and Continental Can. Crown was a much smaller producer, with only an estimated 4% market share in 1961. Firm management made a strategic mistake in trying to copy the high volume, low margin strategy of its larger competitors.

Scholars have found that when the management of a firm passes onto heirs, firm performance tends to suffer.[15] And Crown was no exception: Figure 1 shows a pattern of value reducing investments under family ownership during the early and mid-1950s. Crown's risk-adjusted stock returns relative to competitors in the container industry fell steadily from 1951 to 1957. By 1954, the company's profit margin had fallen to 2% as operating expenses climbed to 13% of sales.

A new president, Russell Gowans, was brought in to improve performance but Nagle retained the title of chairman and the McManus family still held majority ownership. When Gowans asked permission to bring outsiders onto the board of directors, he was refused.

The Restructuring

By the first quarter of 1957, Crown's poor operating performance created a cash crisis. The previous year's earnings were not enough to pay the preferred dividends. Crown sustained a first quarter loss of $600,000 and its bank withdrew credit. Along with $2.5

---

[14] U.S. Census of Manufacturers.

[15] Cucculelli, M., Micucci, G., 2008. "Family succession and firm performance: Evidence from Italian family firms," *Journal of Corporate Finance* 14, 17-31.

million in debt called by its bank, Crown owed $4.5 million in short-term notes payable by the end of the year. Its common stock was selling for half its book value.

With the firm unable to make dividend and interest payments, the McManus family finally relented to Gowans and an outsider, John Connelly, was elected to the board in November 1956. Connelly, previously a sales manager for Container Corporation of America, was promised business by Crown if he would start his own business. In response, he formed Connelly Containers in 1945. However, the Nagle regime that followed McManus Sr. did not honor the promise. Despite being turned down, Connelly cultivated an interest in the company while building Connelly Containers and began buying Crown stock in 1955. As the depth of Crown's problems became apparent to him, Connelly turned to his friend Robert Drummond, an investment banker, for information and advice. Previously, they had attempted the takeover of the St. Lawrence Corporation together in 1951 and had failed. At first the task of taking control of Crown seemed impossible to Connelly and Drummond, because so much of the stock was in family hands. But as the firm's financial condition worsened, support for Connelly grew amongst shareholders and customers. By the time Connelly was elected to the presidency in April 1957, he was Crown's largest stockholder outside of the McManus family.

When he assumed the presidency, Connelly immediately canceled all new purchasing orders. In three months, Connelly liquidated $7 million in inventory and paid off all short-term debt without issuing any new debt. He reduced long-term debt and repurchased 20,000 shares of preferred stock, saving $300,000 in fixed debt and preferred charges. Connelly cut headquarters staff from 160 to 80 and laid off 1647 employees (24% of the work force), reducing the payroll by $10 million. He discarded the divisional corporate structure and replaced it with a lean, straight-line organization, avoiding duplication of sales and management efforts. He eliminated inefficient materials handling and reduced production facilities from 53 multi-story buildings to three single-story buildings. Connelly emphasized quality control by monitoring manufacturing variances. Rigorous sales forecasting reduced overproduction and excess inventory. Connelly dined with employees in the company cafeteria and consulted with line workers. He visited plants throughout the United States and the world that had not seen a visitor from upper management in years. He eliminated management limousines. Crown's liquidity crisis subsided as efficient personnel and inventory management practices generated cash that had been squandered in the past.

Connelly's changes allowed Crown to succeed in a metal can industry that much larger competitors eventually abandoned. In 1957, three companies bigger than Crown dominated the industry. The two largest companies, Continental Can and American Can, had sales approximately nine times that of Crown, while National Can was closer in size. Despite Crown's small size in 1957, Connelly's policies eventually led to Crown's purchase of its largest competitor, Continental Can, in 1990. Crown would ultimately be the only one of the four largest companies in 1957 to survive as an independent company.

One of Connelly's most important new policies was replacing common dividends with a stock repurchase program. Given the difficult industry conditions during his tenure, the flexibility of the stock repurchase program proved quite an advantage.[16]

Payout Policy

As Crown emerged from its liquidity crisis in 1958, the company began repurchasing its preferred and common stock. Crown subsequently repurchased its preferred in every year except 1960 and retired it altogether in 1970.

The firm repurchased common stock in 26 of the 32 years from 1958 to 1989, with the six exceptions occurring during the 1960s.[17] Between 1957 and 1989, Crown retired $624 million of preferred and common stock, using 31% of the firm's operating cash flow during that time. Figure 3 shows the amount of shares repurchased as a percentage of operating cash flow. Consistent with financial theory,[18] Crown appeared to increase its repurchases when high internal cash flow gave it flexibility to do so. The firm's cash flow statements show that cash flow from operations was by far the largest source of cash, at 77%, with the rest coming from debt and equity issuances and property sold.[19] Cash flow from operations was especially strong in the mid-1980s when Crown repurchased shares heavily. During 1957-1989, cash flow from operations totaled $2.1 billion and was positive in every year.

The repurchases provided Crown shareholders with a payout yield comparable to that of its dividend paying competitors. Crown's repurchase policy during Connelly's reign resulted in an average common yield, 4.7%, that was almost identical to the average of its competitors' common dividend yield of 4.6%. If one includes preferred stock repurchases and preferred dividend increases in the calculation, Crown's payout yield increases to 5.7%.[20] Additionally, the common payout yield under Connelly was greater

---

[16] Connelly's decision to discontinue dividends appears to have been a conscious choice, and not the result of the firm's distress. The company Connelly formed to do business with Crown, Connelly Containers, also shunned the payment of cash dividends. From 1948 until 1957, Connelly Containers paid no common cash dividends. During 1958-1961, its common stock paid a dividend of just 10 cents on an average stock price of $5.38. From 1962 until 1988 (the last year it was public), the company paid no cash dividends. Connelly Containers pursued an active repurchase program that resulted in the retirement of all preferred stock by 1962.

[17] In five of the six years that Crown did not repurchase common stock, the firm did repurchase preferred. Only in 1960 did the firm not repurchase any stock. In Crown's annual report, Connelly describes 1960 as "a year of challenge" due to increased material and labor costs as well as a decrease in sales attributed to increased competition.

[18] Lie, E., 2005. Financial flexibility, performance, and the corporate payout choice. Journal of Business 78, 2179-2202.

[19] Similar to the methodology in Lie (2005), to arrive at the cash flow from debt, we use it in the summation of the total only when its net contribution is nonnegative.

[20] To determine the yield on Crown's common stock, the annual dollar amount of common repurchases is divided by beginning of the year common capitalization. When the preferred yield is included in the calculation, common and preferred repurchases as well as preferred dividends are divided by beginning of the year common and preferred capitalization.

than the common dividend yield under the Nagle regime, 3.9%. Thus, Crown stockholders who chose to tender shares enjoyed cash distributions similar to that under a dividend program.

Although aggregate yields may be similar, share repurchases result in more variable payments to shareholders than regular dividends do. But, as mentioned earlier, a repurchase program gives a firm several advantages over dividends. First, firms can do repurchases quickly and without creating an expectation that repurchases will continue in the same manner.[21] For Crown, this flexibility was important, given that the growth prospects in its mature industry were very uncertain. The variability of cash flow spent on repurchasing stock in Figure 3 indicates that Crown used the flexibility inherent in stock repurchases. In some years, Crown spent over half its operating cash flow on repurchases, while in other years very little. By retiring all of its preferred stock, Crown also eliminated the fixed charges of the preferred dividend.

Repurchases allow flexibility in the timing of the repurchase and the amount of the repurchase. This flexibility allowed Crown to buy back stock in years when investment opportunities were low. Typically, Crown bought stock when a market maker would call the firm with a block of shares to sell. With willing sellers, Crown could often buy the stock at attractive prices, further encouraging manager shareholders to remain long-term shareholders. But when international expansion opportunities presented themselves, Crown could defer repurchases, finance investment internally, and avoid the transaction costs of external borrowing. While quite different from its competitors' conglomerate strategies popular at the time, Crown's focused and flexible investment strategy greatly rewarded its shareholders over the long-term.

Managers who do not tender their own shares when conducting a repurchase send a strong positive signal to the market.[22] Such repurchases are a much more credible signal than dividends. While cash dividends allow managers to diversify their wealth, shareholder managers concentrate their wealth in the firm when they do not tender their shares during a repurchase program. Managers will choose repurchases over dividends only if they are confident of the firm's future. Board insider ownership in Crown was generally quite high, averaging 33.7% during the Connelly era and reaching a high of 60.5% in 1963. High insider ownership reinforced the signal sent by repurchases.[23]

---

[21] Researchers have found that most firms do not maintain a fixed repurchase ratio. For example, Brav, A., Graham, J.R., Harvey, C.R., Michaely, R., 2005. Payout policy in the 21st century. *Journal of Financial Economics* 77, 483-527.

[22] For a formal treatment of this effect, see Vermaelen, T., 1984. Repurchase tender offers, signalling and managerial incentives. *Journal of Financial and Quantitative Analysis* 19, 163-181. Ofer, A.R., Thakor, A.V., 1987. A theory of stock price responses to alternative corporate cash disbursement methods: stock repurchases and dividends. *Journal of Finance* 42, 365-394.

[23] We have considered the possibility that Crown used other methods of signaling such as insider purchases and projections or revisions of earnings announcements. Examining the *Wall Street Journal Index* available from 1962-1990, we uncovered only three repurchase announcements, two specific announcements of insider purchases, and eight public announcements of favorable earnings revisions and projections. The average two day abnormal returns (calculated with a market adjusted model and CRSP

Although Crown did not usually issue formal repurchase announcements, repurchases are not as necessary as signals to the market when insiders hold large equity stakes. Shareholders can be more confident that their investment will be fairly valued if management periodically repurchases stock when it believes the stock is undervalued. Crown repurchased common stock in 26 of the 32 years between 1958 and 1989. In 19 of those 26 years, Crown bought its stock at prices less than the average stock price in those years. While the mean average of Crown's stock prices during those 26 years was $36.43, the average repurchase price was only $34.31.

Finally, by distributing cash through share repurchases rather than dividends Crown allowed its stockholders to save on taxes. Shareholders who wanted cash had the choice of when to tender their shares, paid tax only on that part of the sales price that represented a capital gain (as opposed to dividends that are taxed 100% as ordinary income) and then at a lower capital gains tax rate. Even when Crown repurchased stock, shareholders could still choose to hold onto their shares with the expectation of further capital gains while continuing to delay paying tax on those gains until the time they wished to sell their shares.

Corporate Governance

One of the benefits of dividends is that they reduce management's ability to waste free cash flow on uneconomic projects and thereby subject management to more capital market supervision. But if a firm is not paying dividends, shareholders must have other means of monitoring management and aligning managerial interests with their own.

Debt capital may also impose greater discipline upon management than equity capital would. In contrast with the flexibility of equity capital and a share repurchase policy, debt capital requires principal and interest payments according to a rigid schedule. But Crown's impressive performance was achieved with limited use of financial leverage.

Connelly sought to limit the control that banks exercised during Crown's cash crisis in 1957, and steadily reduced leverage over time.[24] Long-term debt, while financing 22% of Crown's assets in 1960, had been reduced to just 0.9% by 1988. During Connelly's

value weighted index) from these announcements are shown below. We also considered the possibility that Crown relied on the dividend announcements of its competitors (American, Continental, and National Can companies) for transmittal of industry wide information to the marketplace. Using CRSP dividend data, we examined the eleven dividend increases that elicited two day abnormal returns higher than 0.015 for the respective dividend issuing company. However, the evidence presented below does not suggest that Crown used any of these potential alternative signaling mechanisms.

	Number	*2 Day Abnormal Return*
Repurchase announcements	3	0.0109
Insider purchases	2	-0.0188
Earnings announcements	8	0.0002
Competitors' dividend announcements	11	-0.0034

[24] According to a senior officer and board member from the Connelly era, Connelly would circulate memos whenever bank debt was retired to congratulate his fellow officers.

tenure as CEO, long-term debt financed just over 10% of assets, on average; and if we include short-term debt in the calculation, the figure rises to less than 17%. Crown was a net borrower in only 16 of the 33 years from 1957 to 1989; and in all but seven of those years, Crown paid out more cash to shareholders through repurchases than it borrowed.

Hostile takeovers are another way that capital markets act to reduce agency costs. But this argument seems largely irrelevant in this case, since the large shareholdings of Connelly and other insiders could have been used to block any takeover attempts. And thus, as studies of corporate governance go, Crown is a highly unusual case. Many observers wondered how a firm could limit agency costs without the obligations imposed by debt and regular dividend payments.

Closer inspection shows that Crown achieved effective governance during the Connelly years in a variety of ways. Chief among them were several important monitoring and incentive alignment mechanisms. The CEO, other senior officers and the board of directors (including a particularly large active investor) were also substantial shareholders, creating an incentive structure that encouraged investment of free cash flow only in those projects likely to generate adequate returns on capital in the future or to repay debt or repurchase shares.

6.1 Monitoring

Connelly began to replace Crown's board of directors as the crisis of 1957 subsided. Crown repurchased the stock of the McManus family in 1958 and 1959 and members of the family then left the board of directors. Connelly replaced other members of the board as well. By 1960, only one of the directors from the previous era, Herman Ginsburg, remained. Ginsburg was a dissenter under the earlier regime who had run Crown Cork International, the only division that performed well before Connelly.

Robert Drummond, an investment banker at Francis I. DuPont & Co., had helped Connelly become CEO. As someone who both provided advice and owned a substantial equity interest, Drummond was what Harvard Business School professor Michael Jensen would approvingly have referred to as an "active investor." Drummond and his firm held 34.6% of Crown's common stock in 1963, and their ownership did not fall below 20% until the 1970s.

In Table 1, we present average statistics on Crown's corporate governance and compensation policies over four different periods. The four periods summarize data over 38 years of Crown's history. The periods are: pre-Connelly (1952-1956); early Connelly (1957-1967); mid-Connelly (1968-1978); and late Connelly (1979-1989). Note that active investor ownership was nonexistent during the previous era but rose to 20.6% on average during the restructuring of Connelly's early era.[25,26]

---

[25] Louis Yaeger, another outside investor, was elected to the board in the same year as Connelly. From 1957-1960, Yaeger held an average of 2.9% of Crown's shares and his shares are included in the ownership by active investors. Also, for five years beginning in 1979, Teledyne, a diversified electronics company, took a stake in Crown that grew to 9.1%. Because the firm did not obtain a seat on the board of directors, Teledyne's shares are not included in the ownership by active investors. Interestingly enough, Teledyne also had a relatively long history of a no cash dividend policy. Eventually, Crown repurchased Teledyne's

In addition to Drummond and the DuPont company, other board members also maintained substantial financial stakes in Crown's future. Of the board members who replaced those from the Nagle era, all had stock ownership in Crown. In total, common stock ownership by board members in the early Connelly era averaged 47.7% and never fell below 21% during the three Connelly eras (Table 1). During the early 1960s, ownership by board members reached 60%. It's important to note, however, that board ownership is no guarantee by itself of success since board members owned 27.5% of Crown's stock in the pre-Connelly era. The same can also be said for officers who were on the board. Their ownership was also quite high pre-Connelly and later it ranged from 20.1% to 27.1% (Table 1).

Perhaps most remarkable is Connelly's stake in Crown. In addition to his own share ownership, Connelly also had a personal interest in shares owned by his charitable organization, the Connelly Foundation.[27] Early in his career, Connelly began aggressively purchasing shares of Crown for both his family and the Connelly Foundation. Through the Foundation's and his own shares, Connelly initially controlled 3.5% of the firm in 1957. This interest grew to 25.0% by 1962. As Connelly neared death, he began selling his own shares, but his control through his shares and the Foundation's never fell below 14% (as can be seen in Table 1). Crown thus resembled an owner-operated firm to a substantial degree. Connelly had much at stake in Crown's success and exerted a great deal of control over its operations.

The composition of Crown's board evolved over time. At first, the company needed the discipline of outsiders to correct years of subpar performance. Outside representation on the board was increased from 10% under the Nagle regime to 64% in 1960. As shown in Table 1, the proportion of outsiders on Crown's board during the first Connelly era was 43%.

As the company grew out of the crisis and expanded internationally in the 1960s, Connelly increased representation of international officers. Although the proportional representation of outsiders declined due to increased international representation, the number of outsiders on the board in most years was six. As will be discussed later, an important element of Crown's growth strategy was to expand internationally where

---

shares in June of 1984 at the then market price of $36/share. For an examination of Teledyne's repurchases and an analysis of the returns to its security holders from repurchase announcements, see Wansley and Fayez (1986).

[26] Denis et al. (1997b) note that managerial ownership may result in entrenched management due to their increased power and the reduced probability of takeover. In the case of Crown, the presence of outside blockholders and Connelly's consistent record of success was a deterrent to takeover activity.

[27] Through his foundation, Connelly made charitable contributions of more than $74 million during his lifetime. Connelly, a devoted Catholic philanthropist, was designated a Gentleman of His Holiness, the highest honor given to laypersons outside of Vatican City. Connelly contributed to Villanova, LaSalle, and Thomas Jefferson universities as well as the University of Pennsylvania. *New York Times* Obituary, July 11, 1990, p.A1.

competition was not as fierce and profit margins were higher. By increasing international representation on the board, Crown increased information flow from operations abroad.[28]

6.2 Managerial Compensation

At Crown, managerial compensation was performance-based, with modest rewards for merely average performance. Connelly's salary was small compared with executives at other can manufacturers. It never rose above $200,000 during the period 1958 to 1983, and was less than a third that of American Can's or Continental's chief executives.[29] In fact, when Connelly began rebuilding Crown in 1958, his salary was only $34,166, as compared to the $208,200 paid to American Can's chief executive.

But if his salary was modest, Connelly benefited very substantially from his ownership in Crown. Proxy statements from 1957 to 1989 show that his wealth and that of his Foundation increased by an average of $10.2 million annually through stock price appreciation over the period[30]—an amount that, over the entire period, was more than 74 times Connelly's average salary of $131,415. In Table 1, the increase in Connelly's equity stake as a multiple of his salary was 74, 56, and 77 during the three Connelly eras. This is a marked contrast from the multiple of 2 in the pre-Connelly era.

At its peak in 1989, the market value of Connelly's and the Foundation's common stock was $233.5, and the average value of their holdings was 660 times Connelly's salary. Not only did Connelly himself then have a powerful incentive to reduce operating expenses and increase firm profitability, but outside shareholders would have great confidence in management despite its no-dividend policy.

Base salaries for other Crown executives were also comparatively modest. For example, in 1989, the top 20 officers made an average salary of $115,000. The senior vice presidents of finance and sales earned $122,828 and $121,734 in salary, respectively. But though their salaries were relatively low, these executives also had substantial ownership interests. In 1989, the six officers below Connelly on the board held $14.7 million of Crown's common shares. Their increase in wealth from stock price appreciation in that year was $2.2 million, averaging $358,820 per board officer. Crown had an active stock option plan, granting an average 1.14% of annual shares outstanding

---

[28] The results of Linck et al. (2008) support the hypothesis that board structure is based on the costs and benefits of monitoring and advising. Consistent with the hypothesis that managerial ownership and board monitoring are substitutes for one another, they find that high managerial ownership is associated with smaller and less independent boards. Crown's board structure is somewhat consistent with their results. The inclusion of international officers increased the flow of information and resulted in a proportionally less independent board. However, Crown's board grew quite large as international representation grew.

[29] For the years 1958-1983 subperiod, Connelly's average salary was $91,458, compared to $326,784 for American CEOs and $297,035 for Continental CEOs. Complete data for National Can's CEO was not available.

[30] In order to determine his change in wealth from firm performance separate from his purchases of shares, this figure is calculated each year as the change in stock price times the previous period's share ownership.

to officers in the Connelly era.[31] In 1969, the firm established an employee stock ownership plan for all employees in which 10% employee purchases were matched by 25% contributions by the firm.

One reason Connelly avoided dividends was to motivate management [**using stock options as well as common shares?**]. He thought the best motivation for managers would come from a combination of low salaries, stock options, and share price appreciation strengthened by a repurchase program.[32] When paid with stock options, managers will prefer the share price appreciation effect of repurchases to dividends.[33] Over Connelly's career, Crown repurchased $624 million worth of common shares while selling only $186 million worth. By 1989, the firm had repurchased 63.9% of the shares Crown had outstanding in 1957. Officers owned 22.6% of Crown's shares on average over that era, but this would only have been 16.8% without the share repurchases. Board members owned 33.7% on average over the same period but this would have been only 26.3% without the share repurchases.

In addition to the economic incentives he created, Connelly engendered managerial loyalty by visiting plant personally and helping them feel proud to be on an underdog team that was outperforming larger adversaries. Connelly promoted only from within the company, creating an additional incentive for management to work in Crown's long-term interests. Pay for performance extended to the plant level.

Crown's Strategy for Growth in a Mature Industry

Crown's industry environment was challenging. It operated in a low-margin, slow-growth business. Its competitors decided to diversify away from the packaging industry. By contrast, Crown achieved impressive operating efficiency and returns to shareholders by focusing on metal cans and maintaining strict cost controls.

Crown timed acquisitions to its advantage because internal cash flow was the source of funds and it could defer share repurchases when it found attractive investment opportunities. And as we discuss below, Crown is an excellent case of large management ownership leading to a focused growth strategy and value-increasing capital investments.[34]

---

31 In the words of one junior executive, "If John (Connelly) told me to jump out the window, I'd jump - and be sure he'd catch me at the bottom with a stock option in his hand." *Fortune*, October 1962, p. 163.

32 Per phone conversation with a senior officer and board member from the Connelly era.

33 To determine whether Crown timed repurchases to coincide with insider sales, we regress Crown repurchases against Crown insider sales using the available annual data from 1964 to 1989. It results in an insignificant slope coefficient and an R-squared of 0.0163. However, it appears that Crown did repurchase stock partially to protect shareholders from dilution. During this period, Crown insiders sold 1.1 million shares while Crown repurchased 15.6 million shares.

34 For further description and other examples, see Denis, D.J., Denis, D.K., Sarin, A., 1997a. Agency problems, equity ownership, and corporate diversification. Journal of Finance 52, 135-160. Marchica, M., Mura, R., 2009. Financial flexibility, investment ability and firm value: evidence from low leverage firms. Available at SSRN: http://ssrn.com/abstract=891562.

Interestingly, all three of Crown's competitors paid cash dividends until their eventual end. National Can never missed a dividend in its last 21 years. American and Continental Can never missed a dividend in their entire 66 and 62 years, respectively. And on average, all three competitors used more long-term debt than Crown. From 1957-1984, Crown financed 11.7% of assets with long-term debt, as compared to 22.3% for the average of its competitors. In all but four of those 26 years, Crown carried less long-term debt than its average competitor.

7.1 Conditions in the Metal Can Industry

During the 1960s, metal cans became Crown's primary business. By 1974, crowns and cans constituted 3.3% and 59.4% of domestic sales, respectively.[35] However, the metal can industry was a slow growth industry with low margins where the threat of self-manufacture by beverage companies was always present. This was partly because the expense of transporting metal cans put outside suppliers at a competitive disadvantage. As Figure 4 illustrates, the share of the metal can market devoted to self-manufacture grew from 13% in 1955 to 24% in 1988, and reached a high of 34% in 1982.[36] Plastic containers posed another threat to Crown. Plastic bottles became more popular partly because of their light weight and shatter-resistance. Figure 5 shows how demand for plastic containers grew faster than for metal cans. Lastly, aluminum cans threatened steel cans. Traditionally, metal can manufacturers preferred steel for its low cost. But by the early 1970s, aluminum cans had become much more popular. The major aluminum producers, Reynolds Metals and Alcoa, also made most of the aluminum cans. Aluminum had several advantages over steel. It was lighter (less than half the weight of steel) and cost less to transport. And it was also easier to lithograph, did not have a flavoring problem like steel cans, and was more easily and economically recycled.

Though metal cans were predominantly still made of steel in 1970, aluminum had the largest market share (Figure 6) by 1988. In 1989, aluminum had 99% of the beer can market and 94% of the soft drink can market.[37]

These competitive pressures led to what Standard and Poor's Industry Survey referred to as "the chronic overcapacity that plagued the industry in the late 1960s and early 1970."[38] Industry analysts estimated overcapacity at 30% in 1973 and more than 20% in 1981.[39]

7.2 The Response of Crown's competitors

---

[35] "Crown Cork and Seal Company, Inc.," HBS Case Services No. 378-024, Harvard Business School.

[36] Sources: "Crown Cork and Seal Company and the Metal Container Industry," HBS Case Services No. 373-077, Harvard Business School; Standard and Poor's Industry Surveys 1961-1980; and "Crown Cork and Seal in 1989," HBS Case Services No. 9-793-035, Harvard Business School.

[37] "Crown Cork and Seal in 1989," HBS Case Services No. 9-793-035, Harvard Business School, p. 4.

[38] Standard and Poor's Industry Survey, 1974, p. C107.

[39] Standard and Poor's Industry Survey, 1973, p. C62; Standard and Poor's Industry Survey, 1982, C104.

Researchers have found that companies that make bad (including overprice) acquisitions significantly increase the odds that they become the next takeover targets.[40] That was especially true in the metal can industry. Crown's three competitors all pursued conglomerate diversification strategies without success and were eventually acquired by other companies.

The smallest competitor in 1956 was the National Can Company. Initially, National stayed fairly close to its core business with sales from both metal cans and housewares. Nevertheless, the firm later diversified into food products and pet foods starting in 1967 and experienced financial trouble by 1975. By this time, many Wall Street analysts urged management to sell off its pet food products, but the company held onto these businesses until 1979. Ultimately, Triangle Industries acquired National in April of 1985.

In 1956, American Can sold metal cans, metal goods, and related machinery areas and had nearly nine times the sales of Crown. Even so, American diversified itself into a conglomerate even more aggressively than National did. By 1986, the firm was selling products ranging from dress patterns to biomedical equipment and had entered financial services and retailing. American then changed its name to Primerica to reflect its diversification into financial services. American was one of the first companies to pay greenmail in the 1980s. The firm repurchased shares from a group led by Carl Icahn in August of 1982 and divested its paper products business by 1983. Eventually, Primerica also sold its metal can business to Triangle Industries in 1986. Later, Triangle sold both National and American Can to Pechiney, an aluminum concern owned partially by the French government.

Crown's largest competitor in 1956 was the Continental Can Company. It sold metal cans, closures, and paper and glass containers but later also diversified into financial services and unrelated areas such as soy protein products and sausage casings. Continental bought the Quartite Creative Corporation, a manufacturer of lamps and home furnishings. When selling cans, Continental concentrated on volume, not margins, but its operations were notoriously inefficient. After a leveraged buyout failed to turn the company around, it was acquired in 1984 by the Nebraska firm, Peter Kiewit Sons.

Crown became the largest can manufacturer in Canada (65% of the Canadian market) in 1989 after buying the Canadian operations of Continental. This gave it some pricing power and high margins, while tariffs protected it from competition. Crown had paid only eight times operating profits, as compared to the ten times operating profit Pechiney paid for Triangle Industries' American National Can Company.

In 1990, Crown went on to purchase the U.S. operations of Continental from Peter Kiewit.[41] Because the former Continental staff were poorly motivated and operations

[40] See for example, Mitchell, M.L., Lehn, K., 1990. Do bad bidders become good targets? Journal of Political Economy 98, 372-398.

[41] Some analysts believe Kiewit lost $50 million on the sale. Ibid.

were inefficient, the gains to Crown would have to come from changing the compensation structure and performance of its managers to resemble Crown's.[42]

Analysts estimated that Crown could easily save $25-30 million in operating expenses and an additional $60 million if it shut down four of Continental's plants. These purchases also made Crown the world's largest buyer of aluminum, giving it bargaining power with aluminum suppliers. (In the 1960s, its interesting to note, Crown had hesitated to abandon tin cans for aluminum because it was afraid of the oligopolistic power of aluminum suppliers.)

7.3 Crown's Strategy

Rather than follow its competitors into unrelated businesses, Crown expanded internationally in the same industry and specialized in products not vulnerable to self-manufacture by beer and soda companies. Figure 7 presents a graphical representation of the acquisition strategies in the metal can industry. At one extreme, American Can made 81% of its acquisitions in unrelated areas while Crown made all of its acquisitions within its core business of containers and packaging. Crown was the only major metal can manufacturer that did not expand outside the packaging industry. Connelly believed that by staying within its core business, Crown could concentrate on business it had expertise in and rely on homegrown instead of outside executives.[43]

Some financial professionals have advised companies to acquire private firms or divisions of public firms rather than entire public firms.[44] The argument is that without a stock price to serve as a starting point for negotiations, a buyer is more likely to avoid competitive bidding situations. The same advisors also recommend that acquisitions be within the acquirer's core. Under Connelly, Crown typically bought privately held firms or parts of publicly held businesses.

Crown management believed that increased living standards and population growth would result in much higher growth abroad than in the U.S. In 1960, Connelly established a program to build plants overseas and twelve years later the company had 33 plants in lesser developed countries. By 1989, foreign plants contributed 62% of the firm's pre-tax profits. For the 13 years (of available data) from 1977-1989, pre-tax profits grew by 0.1% in the U.S. compared to 10.6% and 8.7% in Europe and lesser developed countries, respectively. Crown's international expansion was in keeping with its emphasis on cost efficiency and margins, as international profit margins were typically

---

[42] According to William Avery, Connelly's successor in the president's chair: "The success of the individual managers are linked to the success of the company (Crown) as a whole," Avery explains. "At Continental, the managers were, for the most part, professional managers, excellent in quality but perhaps lacking the same devotion as many of the Crown people. A major portion of our earnings came from the gain in stock, whereas the Continental employees were basically salaried. So when we restructured the company, everyone from a plant manager up within this organization was offered stock options. In so doing we are trying to get the managers to look at their roles as owner-operators, which is a lot different from being a professional manager." *Beverage World,* February 1992, p. 66.

[43] Per phone conversation with a senior officer and board member from the Connelly era.

[44] Copeland, T., Koller, T., Murin, J., 2000. Mergers, acquisitions, and joint ventures. Valuation: Measuring and Managing the Value of Companies 3, Ch.7. Wiley. New York, NY.

higher than domestic profit margins. From 1977-1989, pre-tax profit margins averaged 8.8% in the U.S. versus 10.3% overseas.

Connelly insisted on tight control of foreign operations and traveled extensively to monitor operations. He was reluctant to relinquish power to other partners and did not enter Japan because that would have required taking on a foreign partner (by contrast, Nagle shared ownership of foreign plants with overseas investors). Under Connelly, Crown purchased the 41% of Crown International not already owned. Crown's usual approach was to staff its foreign plants with foreign national managers and equip them with old machinery removed from its U.S. plants. Frequently, the company would secure exclusive manufacturing rights (referred to as pioneer rights) and ten-year tax breaks from host governments in the initial stages of operation.

Crown emphasized high-margin items that required difficult manufacture and shunned low margin items sold in more competitive markets. For example, despite its 50% market share in metal oil cans, Crown did not expand into composite paper and metal cans because they thought paper companies had an advantage in this new, low margin product. Connelly insisted on a payback of two years for all investments and said that "sales without profits were meaningless." During Connelly's tenure, pre-tax profits grew at an average rate of 18.0% while sales grew at a rate of 9.6%.

To meet the challenge from the aluminum can market and respond to fears of lead migration in metal cans, Crown developed a two-pieced steel can without a lead seam. In 1972, two-piece cans had 8.8% of the soft drink market. By 1988, two-piece cans had replaced three-piece cans entirely. Though Crown eventually moved from steel to aluminum cans in the early 1980s, Connelly shunned aluminum for many years because its high cost resulted in low profit margins.

To prevent the loss of business due to self-manufacture, Crown emphasized customer service. Whereas earlier the company had built a Leeds, Alabama plant so that it could be closer to its suppliers, Connelly shut down that plant and moved operations to Atlanta so that it could better serve its customers. Crown located plants close to its customers so that it could provide timely delivery of inventory, providing just-in-time inventory service before the term became popular. The company also designed printers for cans that allowed for rapid changeover to facilitate this service.

By necessity, cost controls were of primary concern at Crown as aluminum accounted for 65% of the cost of a can, and Crown's customers were large companies that did not accept price increases readily. The boardroom was inexpensively furnished and separated from the secretary's office by folding wooden dividers. Annual reports were sparsely decorated, with few glossy photographs.[45] As a result of the firm's efforts, Crown's operating profit margin exceeded its competitors for most of Connelly's tenure (Figure 2).

---

[45] Crown's operating efficiency won praise from Peter Lynch in his book "Beating the Street." The absence of glossy photographs in Crown's annual report led Lynch to declare the following principle of investing. He states: "This piddling level of expenditure, bordering on the monastic, was inspired by John Connelly, the CEO, who recently died. Connelly's hostility to extravagance brings us to Peter's Principle #17: All else equal, invest in the company with the fewest color photographs in the annual report."

7.4 The Results of Crown's Strategy

Connelly slashed operating expenses to bring Crown out of its liquidity crisis. As the crisis subsided, Connelly continued to reduce spending on perquisites and unnecessary capital expenditure. Inventory turnover improved, productivity increased, and selling, general, and administrative expenses were brought down to the lowest level in the industry. Before Connelly's takeover in 1956, the company's operating expenses were 13.5% of sales. By fiscal year 1983, Crown's operating expenses had been lowered to 3.3%. In contrast, for Crown's three main competitors, American, Continental, and National can companies, operating expenses grew from 4.9% to 8.8% over the same time period.

In keeping with Connelly's emphasis on high margin sales, Crown's gross profit margin averaged 18.5% over 1957-1983 compared to its competitors' 15.4%. More impressive though is the steady rise in Crown's net profits and the company's subsequent domination of its competitors in this area. From a near zero net profit margin in 1956, Crown's margin subsequently surpassed its competitors' average of 2.3% in 1960 and climbed as high as 6.0% in the 1970's. On average, Crown's net profit margin was 4.6% compared to its competitors' 3.2% during 1957-1983. During Connelly's entire tenure, the firm never experienced a quarterly loss.

Crown's average return on assets and equity were also impressive. As a result of Crown's operating efficiencies and emphasis on products with higher margins, Crown's average return on assets was 6.1% while its competitors' was 4.8% during 1957-1983. Operationinng efficiencies and share repurchases drove Crown's returns on equity higher. Its average return on equity was 11.5% compared with 10.1% for its competitors, in the period 1957-1983.

Crown was a success by traditional accounting measures but Crown shareholders enjoyed even more remarkable returns. In Figure 1 earlier we saw the superiority of Crown's risk-adjusted returns to its competitors' in the can and bottle industry during the Connelly era. Figure 8 shows the geometric average return for Crown stockholders and its competitors over the period May 1957 to June 1984. Crown shareholders enjoyed 16.4% annual returns, as compared to 6.4% at American Can Company and 10.7% for Continental and National Can. The company that diversified the most outside of its core business, American Can, had the lowest stock returns while Crown had the highest. The returns for the S&P 500 was 4.6%.

Whether one uses accounting or shareholder return figures, Crown's record far exceeded that of its competitors. Crown went from a liquidity crisis in 1957 to leadership of the U.S. and Canadian metal can industry by 1990. And the company's international and core growth strategies were superior to that of the conglomerate diversification strategies pursued by its competitors.

Summary and Conclusions

The record of Crown Cork and Seal under John Connelly provides a clear demonstration of a mature company's success in a slow-growth industry while making use of a flexible payout policy. As the case suggests, under certain circumstances, and with effective governance mechanisms in place, stock repurchases can substitute for cash dividends while providing financial flexibility, reducing asymmetric information asymmetries, and providing tax savings to shareholders. Crown's payout policy also complemented its compensation policy by increasing management's equity stake and further aligning their interests with external shareholders. At the same time, substantial board and management equity ownership showed faith in the firm and signaled confidence in the market value. Crown kept debt low and used internal cash to fund investments that resulted in a focused, international growth strategy and operational efficiencies. The returns to Crown shareholders exceeded that of investment benchmarks and its competitors.

By contrast, Crown's competitors used much more debt and paid out regular dividends to their shareholders. Faced with slower growth, they pursued diversification strategies that ended up destroying value. What is not clear, and is perhaps an area for future research, is whether their payout policy influenced their investment policy. In other words, was the requirement for stable cash flow that stemmed from their payout policy also an impetus for their diversification across industries?

James Ang is Professor and the Bank of America Eminent Scholar in Finance
At Florida State University's School of Business

Tom Arnold is Associate Professor University of Richmond's Robins School of Business.

Mitchell Conover is Associate Professor University of Richmond's Robins School of Business.

Carol Lancaster is Associate Professor University of Richmond's Robins School of Business.

REFERENCES

Allen, F., Michaely, R., 2003. "Payout Policy," in Constantinides G., Harris, M., Stulz, R. (Eds.), *North-Holland Handbook of Economics* (Amsterdam: North-Holland.

Ang, J., 1987. "Do Dividends Matter? A Review of Corporate Dividend Theories and Evidence," Monograph Series in Finance and Economics.

Baker, G.P., 1992. "Beatrice [**Foods?**]: A Study in the Creation and Destruction of Value, *Journal of Finance* 47, 1081-1119.

Baker, H.K., 2009. Dividends and dividend policy. Wiley, Hoboken, NJ.

Bhattacharya, S., 1979. Imperfect information, dividend policy, and the bird in the hand fallacy. Journal of Economics 10, 259-270.

Blau, B.M., Fuller, K.P., 2008. Flexibility and dividends. Journal of Corporate Finance 14, 133-152.

Brav, A., Graham, J.R., Harvey, C.R., Michaely, R., 2005. Payout policy in the 21st century. Journal of Financial Economics 77, 483-527.

Constantinides, G.M., 1984. Optimal stock trading with personal taxes. Journal of Financial Economics 13, 65-89.

Copeland, T., Koller, T., Murin, J., 2000. Mergers, acquisitions, and joint ventures. Valuation: Measuring and Managing the Value of Companies 3, Ch.7. Wiley. New York, NY.

Cucculelli, M., Micucci, G., 2008. Family succession and firm performance: Evidence from Italian family firms. Journal of Corporate Finance 14, 17-31.

DeAngelo, H., DeAngelo, L., 2007. Capital Structure, Payout Policy and Financial Flexibility. Working Paper, USC Marshall School of Business.

Denis, D.J., Denis, D.K., Sarin, A., 1997a. Agency problems, equity ownership, and corporate diversification. Journal of Finance 52, 135-160.

Denis, D.J., Denis, D.K., Sarin, A., 1997b. Ownership structure and top executive turnover. Journal of Financial Economics 45, 193-221.

Denis, D., Sibilkov, V., 2009. Financial constraints, investment, and the value of cash holdings. Forthcoming Review of Financial Studies.

Dittmar, A.K., 2000. Why do firms repurchase stock? Journal of Business 73, 331-335.

Easterbrook, F., 1984. Two agency -cost explanations of dividends. American Economic Review 74, 650-659.

Graham, J.R., Harvey, C.R., 2001. The theory and practice of corporate finance: evidence from the field. Journal of Financial Economics 60, 187-243.

Jagannathan, M., Stephens, C.P., Weisbach, M.S., 2000. Financial flexibility and the choice between dividends and stock repurchases. Journal of Financial Economics 57, 355-384.

Jensen, M.C., 1986. Agency costs of free cash flow, corporate finance, and takeovers. American Economic Review 76, 323-329.

Jensen, M.C., 1993. The modern industrial revolution, exit, and the failure of internal control systems. Journal of Finance 48, 831-880.

Jensen, M.C., Murphy, K.J., 1990. Performance pay and top-management incentives. Journal of Political Economy 98, 225-264.

Miller, M.H., Rock, K., 1985. Dividend policy under asymmetric information. Journal of Finance 40, 1031-1051.

Kahle, K., 2002. When a buyback isn't a buyback: open market repurchases and employee options. Journal of Financial Economics 63, 235-261.

Lie, E., 2005. Financial flexibility, performance, and the corporate payout choice. Journal of Business 78, 2179-2202.

Linck, J., Netter, J., Yang, T., 2008. The determinants of board structure. Journal of Financial Economics 87, 308-328.

Lynch, P.S., Rothchild, J., 1993. Beating the street. Simon and Schuster, New York, NY.

Marchica, M., Mura, R., 2009. Financial flexibility, investment ability and firm value: evidence from low leverage firms. Available at SSRN: http://ssrn.com/abstract=891562.

Miller, M.H., Rock, K., 1985. Dividend policy under asymmetric information. Journal of Finance 40, 1031-1051.

Mitchell, M.L., Lehn, K., 1990. Do bad bidders become good targets? Journal of Political Economy 98, 372-398.

Ofer, A.R., Thakor, A.V., 1987. A theory of stock price responses to alternative corporate cash disbursement methods: stock repurchases and dividends. Journal of Finance 42, 365-394.

Rozeff, M., 1982. Growth, beta and agency costs as determinants of dividend payout ratios. Journal of Financial Research 5, 249-259.

Thornton, C.W., 1990. First Boston Analyst Report. Crown Cork and Seal.

Vermaelen, T., 1984. Repurchase tender offers, signalling and managerial incentives. Journal of Financial and Quantitative Analysis 19, 163-181.

Wansley, J.W., Fayez, E., 1986. Stock repurchases and securityholder returns: A case study of Teledyne. Journal of Financial Research 9, 179-191.

Wruck, Karen, 1994. Financial policy, internal control, and performance: Sealed Air Corporation's leveraged special dividend. Journal of Financial Economics 23, 3-28.

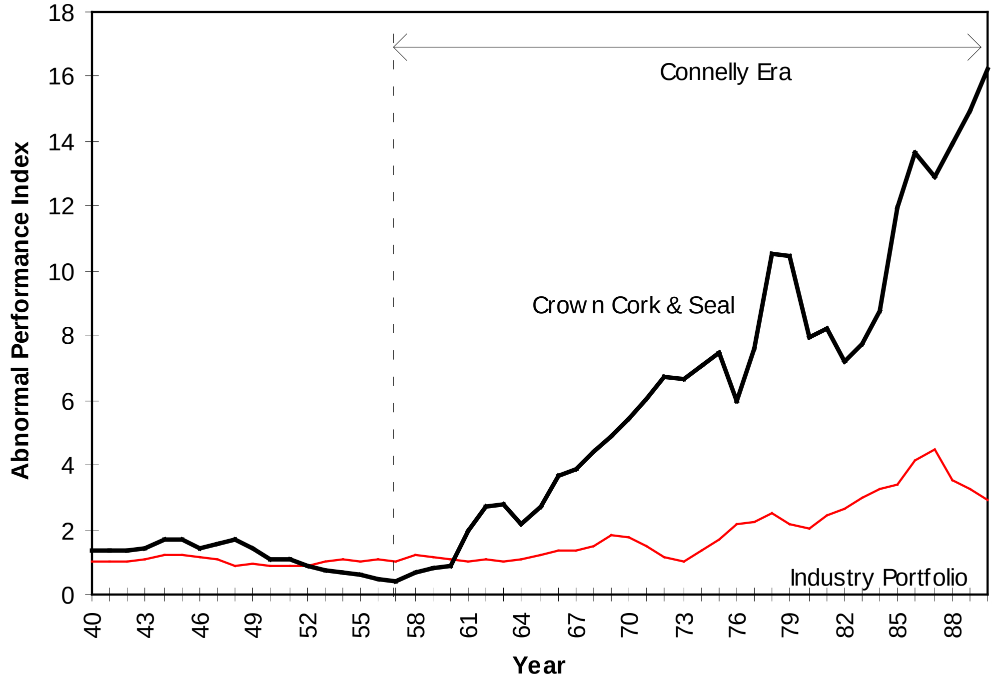

Figure 1. Abnormal stock price performance index for Crown Cork and Seal and an industry portfolio from January 1940 to December 1990.

The abnormal stock price performance index is calculated monthly as in Baker (1992) and Wruck (1994) where the cumulative actual return is scaled by the cumulative expected return. In the absence of abnormal returns, this index will equal one. Expected returns are calculated on a rolling basis using the Capital Asset Pricing Model. Intercept and slope coefficients are calculated using the prior 36 months of data. The 30 day T-bill rate serves as the risk free rate and the S&P 500 return is used to proxy for the market return. The industry portfolio is the equally weighted average abnormal performance index of ten other can and bottle manufacturers: American Can, Anchor Glass, Ball, Clark Manufacturing, Continental Can, Heekin Can, Kerr Glass, National Can, Owens Illinois, and Van Dorn.

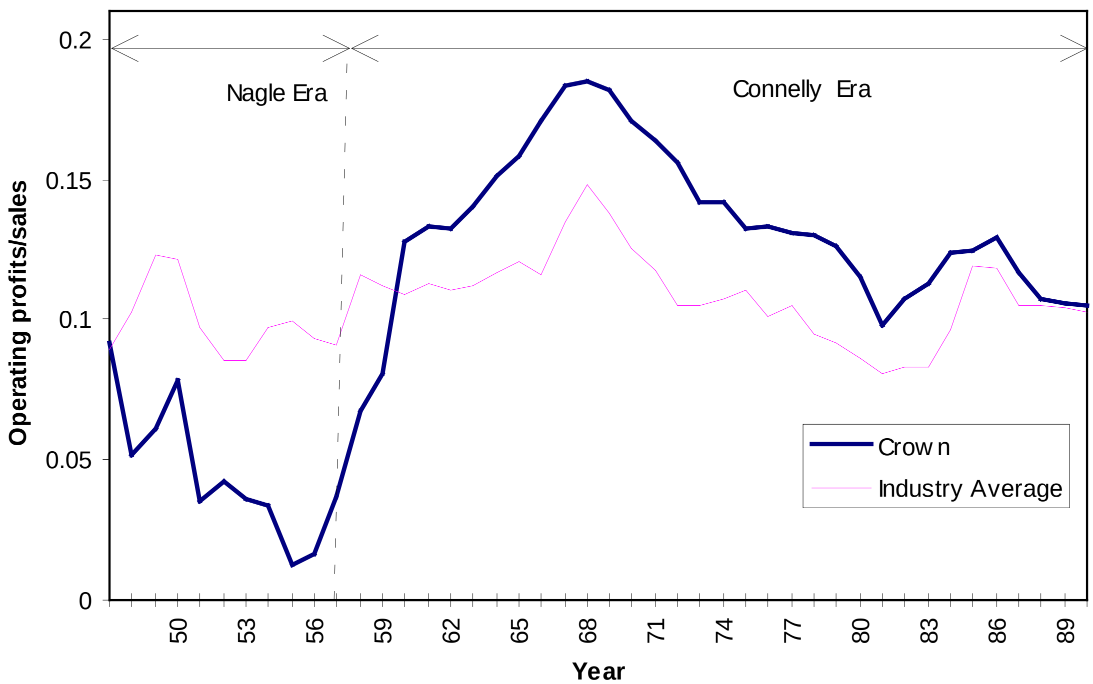

Figure 2. Operating profits scaled by sales for Crown Cork and Seal and an industry portfolio from 1947 to 1990.

The operating profits for the industry is from an equally weighted portfolio of ten other can and bottle manufacturers: American Can, Anchor Glass, Ball, Clark Manufacturing, Continental Can, Heekin Can, Kerr Glass, National Can, Owens Illinois, and Van Dorn. Sources: Standard and Poor's Compustat, Moody's Industrial Manual, and Crown Cork and Seal Annual Reports.

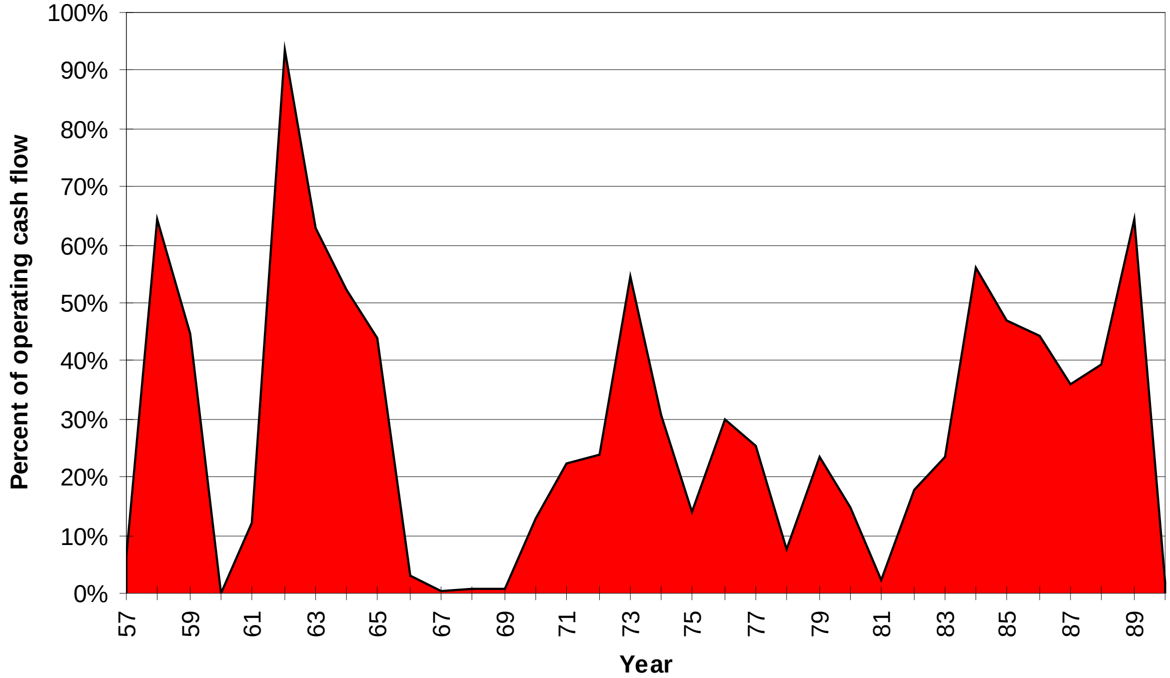

Figure 3. Cash used for common and preferred stock repurchases as a percent of operating cash flow for Crown Cork and Seal from 1957 to 1990. Source: Crown Cork and Seal Annual Reports.

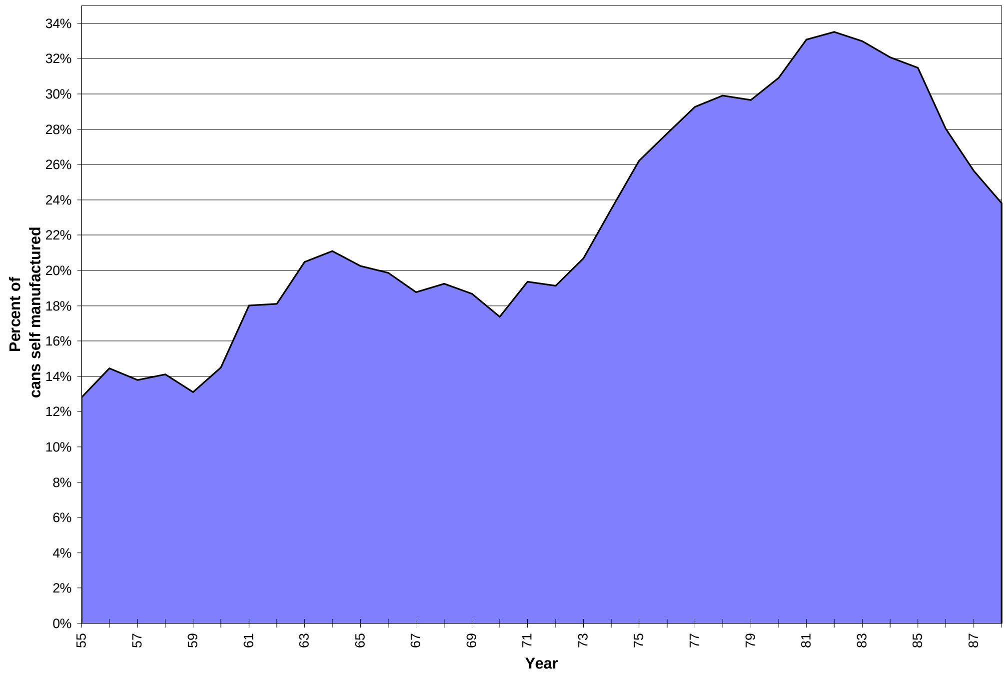

Figure 4. Percent of metal cans self manufactured from 1955 to 1988.

The percent of cans self manufactured measures the percentage of metal cans manufactured by food and beverage companies for their own use. A larger percentage of self manufactured cans corresponds to a lower percentage of cans purchased from metal can companies, such as Crown Cork and Seal. Source: "Crown Cork and Seal Company and the Metal Container Industry," HBS Case Services No. 373-077, Harvard Business School; Standard and Poor's Industry Surveys 1981-1988; "Crown Cork and Seal in 1989," HBS Case Services No. 9-793-035, Harvard Business School.

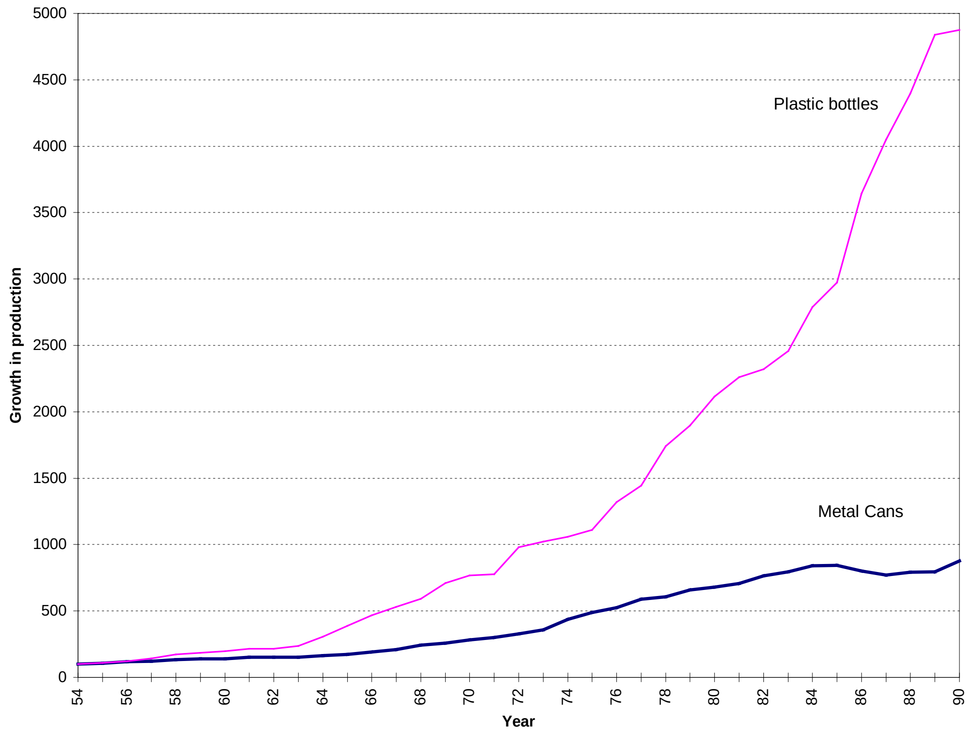

Figure 5. Growth in production of metal cans and plastic bottles from 1954 to 1990.

To examine the relative growth of metal cans and plastic bottles, the data series of the value of shipments for each container is indexed where the base year is 1954=100. Source: U.S. Department of Commerce, Bureau of the Census and the Board of Governors of the Federal Reserve System.

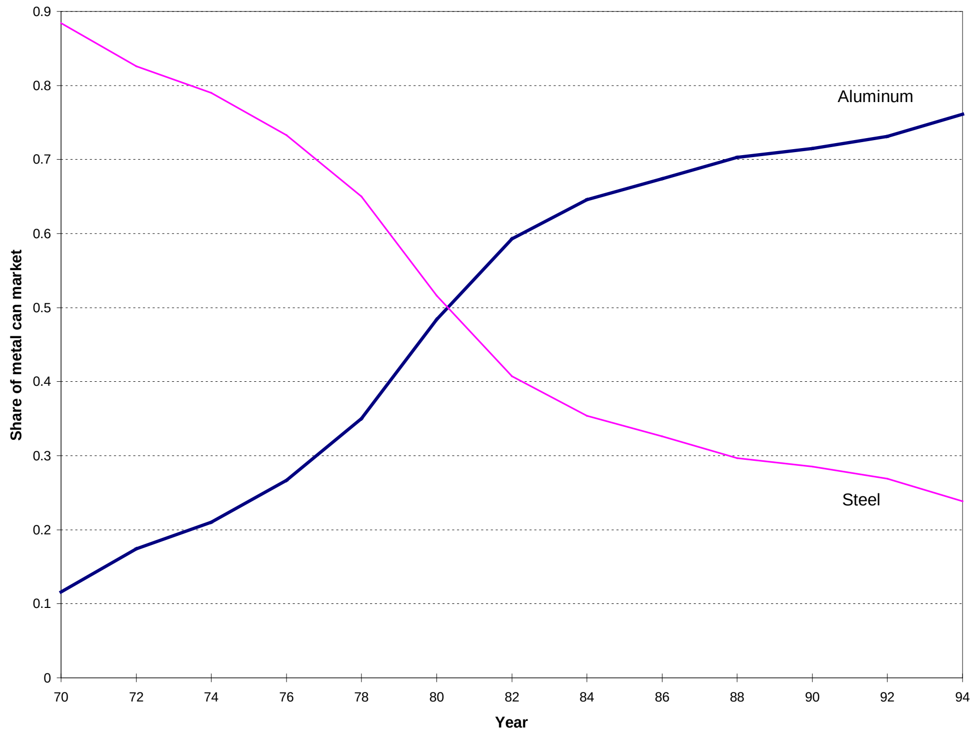

Figure 6. Share of metal cans manufactured with aluminum and steel from 1970 to 1994.

Source: “Crown Cork and Seal Company, Inc.,” HBS Case Services No. 378-024, Harvard Business School; “Crown Cork and Seal in 1989,” HBS Case Services No. 9-793-035, Harvard Business School; Can Manufacturers Institute.

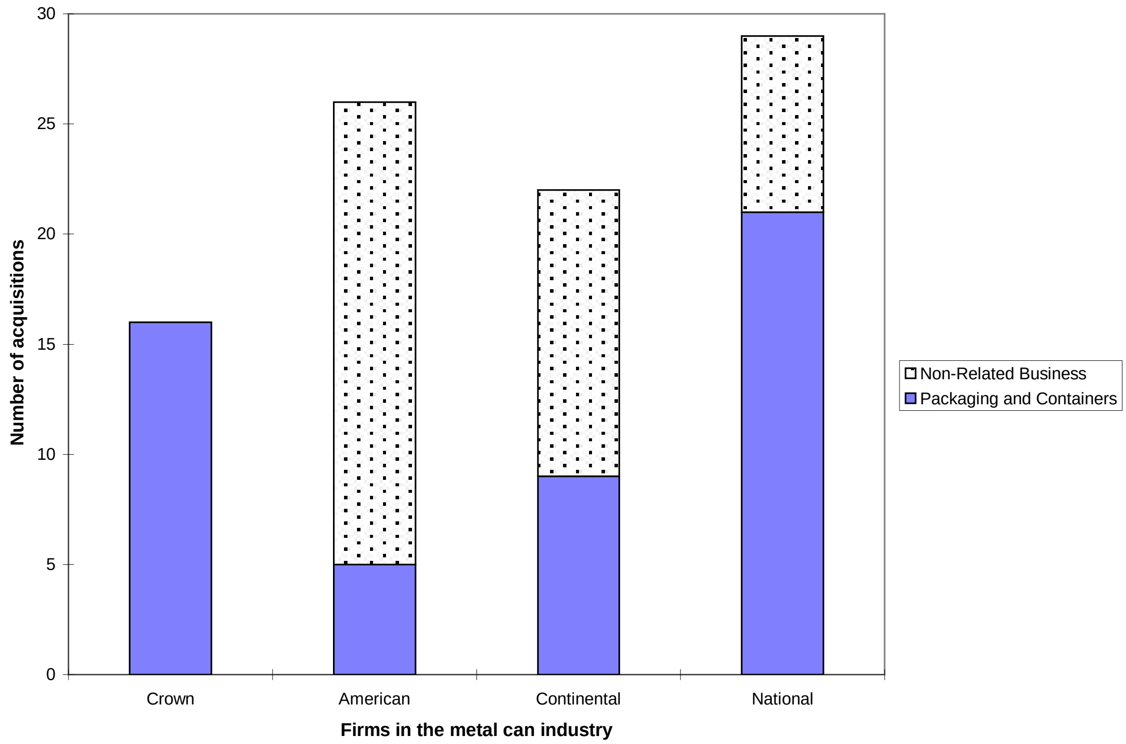

Figure 7. Acquisitions by firms in the metal can industry.

For each of the four firms in the metal can industry, the number of acquisitions within the packaging and container industry and outside the industry are recorded from *Moody's Industrial Manual*. The time period is from 1957 (Connelly's first year as CEO) to 1984 (The year data for Crown's primary competitors in the metal can industry started becoming unavailable as its competitors either went private or were acquired by other firms).

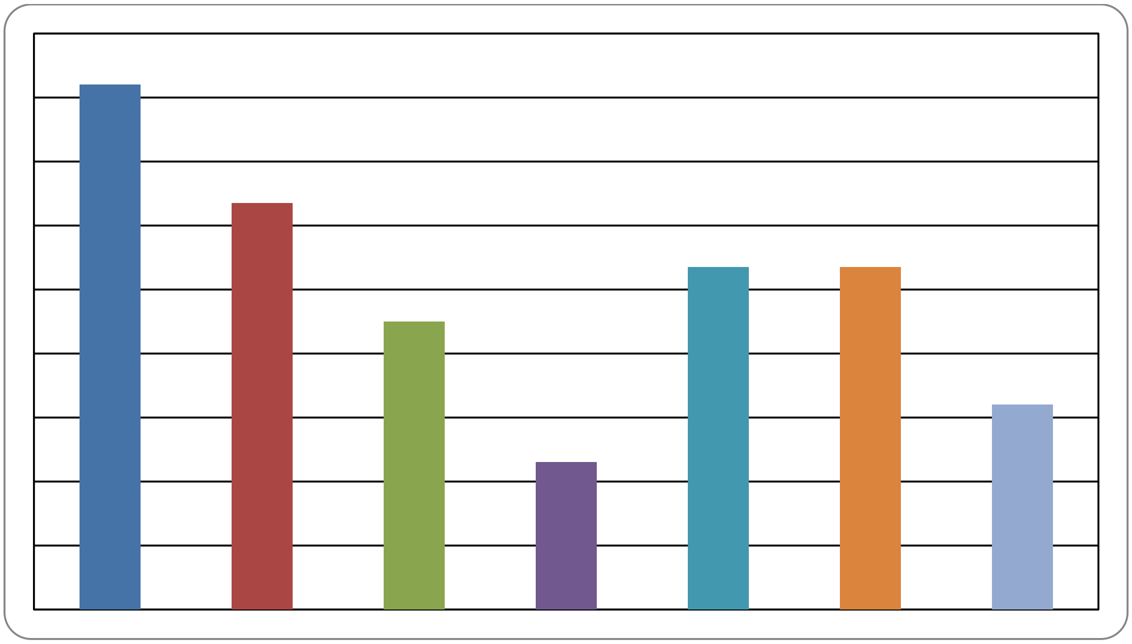

Figure 8. Geometric mean returns for firms in the metal can industry and investment benchmarks.

The returns are from CRSP. The time period is from May 1957 (Connelly's first year as CEO) to June 1984 (The month data for Crown's primary competitors in the metal can industry started becoming unavailable as its competitors either went private or were acquired by other firms).

Table 1
Board Composition, Ownership, and Executive Compensation Statistics

	Pre-Connelly	*Early Connelly*	*Mid-Connelly*	*Late-Connelly*
Board Composition				
% Outsiders	10%	43%	37%	42%
% U.S. Insiders	90%	39%	37%	44%
% International Insiders	0%	18%	26%	14%
Average number of total board members	10.0	13.7	16.6	15.8
Equity Ownership				
Active Investor Ownership	0%	20.6%	12.4%	0%
Board Ownership	27.5%	47.7%	32.5%	21.0%
Officer Ownership	27.5%	27.1%	20.1%	20.6%
Connelly Ownership	0%	18.7%	18.4%	16.0%
Compensation				
Increase in wealth from CEO's equity stake as a multiple of CEO's salary	-2	74	56	77

The above table provides averages for board composition, ownership, and executive compensation statistics. The analysis is partitioned as follows:

pre-Connelly era	1952-1956
early Connelly era	1957-1967
mid-Connelly era	1968-1978
late Connelly era	1979-1989.

Board composition statistics provide the average number of outsiders and insiders serving on Crown's board for the era examined where current and retired officers are categorized as insiders and non-officers and outside counsel are categorized as outsiders. Crown acquired several foreign can manufacturers and many of the former owners gained representation on Crown's board, hence the large number of international insiders on Crown's board. The average number of board members is also reported by era. The source of this information is Crown's annual proxy statements.

Active investor ownership reports the average stock ownership by investors who had beneficial ownership of more than 1% of Crown's outstanding shares, as reported in the annual proxy statements. Board ownership is the average percent of shares owned by all board members. Officer ownership reflects the ownership for officers also on the board, and thus potentially understates total officer ownership. Consistent with Jensen and Murphy (1990), the figures above also include shares where the board member or officer serves as a trustee.

To gauge the sensitivity of Crown's compensation policy to that of the firm's performance through time, the compensation statistic measures the average yearly increase in wealth from the CEO's share ownership scaled by the CEO's salary. A larger number (in absolute value) indicates that the CEO's compensation is more sensitive to changes in stockholder wealth. The increase in wealth is calculated as the rate of return on the firm's stock multiplied by the CEO's beginning of the year stock wealth. Consistent with Jensen and Murphy (1990), this measure includes wealth from shares where the CEO serves as a trustee. The source of this information is Crown's annual proxy statements and the CRSP database.

Appendix A: A Brief History of Crown Holdings Incorporated

1892	The Crown Cork and Seal Company is founded by William Painter.
1927	Charles McManus Sr. assumes leadership of Crown after merging his company with Crown.
1936	Crown branches outside of closures and begins production of tin cans with purchase of Acme Can Company.
1946	Charles McManus Sr. dies and his secretary John Nagle becomes the president and chairman of the board.
1953	Crown's corporate structure is changed in an attempt to revive the company, but results in a top heavy organization.
1954	Crown's profit margin falls to 2% as operating expenses climb to 13%.
1955	Connelly begins buying stock.
1956	Connelly is elected to the board.
1957	Connelly ascends to the presidency and begins restructuring. He eliminates all short-term debt by year end.
1960	Crown establishes a program to build plants overseas.
1963	Crown remains only major can company producing solely metal containers as competitors pursue conglomerate diversification strategies.
1970	All preferred stock is retired.
1977	Crown reaches $1 billion in sales and has 60 foreign plants.
1980	Crown begins production of aluminum cans.
1981	William Avery succeeds Connelly as President.
1989	William Avery succeeds Connelly as CEO. Crown embarks on an ambitious acquisition program. Crown purchases the Canadian can operations of Continental Can and Crown becomes the largest can manufacturer in Canada.
1990	William Avery replaces Connelly as Chairman of the Board. Connelly dies later in the year. Crown purchases the U.S. operations of Continental Can.
1992	Crown makes its first entry into plastic packaging, acquiring CONSTAR International.
1996	Crown merges with CarnaudMetalbox and becomes the largest packaging firm in the world. The firm initiates a quarterly dividend of 25 cents a share.
2000	Crown's stock price is at a 15 year low.
2001	Crown suspends its cash dividend. John Conway takes over as CEO from William Avery.
2002	Crown sells its position in Constar.
005	Crown sells its Plastic Closures business.

Appendix B: Crown in the post-Connelly era

Connelly remained chairman of the board until early 1990 and died in July 1990 at age 85.[46] A 30 year veteran of Crown who had started as a management trainee, William Avery decided that the firm needed to diversify beyond its core metal can business. Avery's strategy was to undertake an active acquisition and joint venture campaign that also moved the firm into plastic packaging.

From 1989 to 1997, Crown undertook 22 acquisitions, spending over $5 billion. A mergers and acquisitions expert from Salomon Brothers, Craig Calle, was hired as treasurer in 1991. In 1992, Crown purchased Constar International for $615 million, its first acquisition in the plastic packaging industry and its first acquisition of a public firm. Van Dorn, a metal and packaging firm was bought in 1993 for $177 million in stock and cash. Crown doubled its size with the acquisition of Continental Can in 1990. It doubled its size again to $9 billion in sales with the $4 billion merger with publicly held, metal and plastic packaging concern Carnaud Metalbox (CMB) in 1996. In the two years from 1991 to 1993, Crown had increased its presence in plastic packaging from zero in sales to $1 billion.[47]

Crown was aggressive in its acquisitions and paid high price multiples for some. Constar was bought at 25 times earnings. The Van Dorn purchase came after a long proxy fight where Crown increased its price several times and was finally bought at 46 times earnings. Also, as part of the merger agreement, Crown agreed to pay the cash dividend that CMB shareholders had previously received. French law favored the payment of dividends and CMB shareholders were expected to demand an all cash acquisition if Crown did not initiate a dividend payment.

Initially, Crown's stock performed strongly under Avery, growing by 16.4% a year from May 1989 to May 1997, compared to 15.9% for the S&P 500. But the latter part of his tenure was not as successful. From May 1997 to December 2000, its stock fell by 39.7% a year, and as a result Crown was worth less than one-fifth of what it had paid for CMB. During the same period, the S&P 500 grew by 16.2% annually. The company's decline was attributed to an increasingly competitive environment, a downturn in business, and consolidation in its customer base. Furthermore, in 1995, Alcoa and other aluminum manufacturers raised prices by 50%.[48] In Europe, two of its competitors combined forces and cut prices, so that Crown's operations from its CMB purchase created a drag on performance. The firm was forced to sell assets to meet its massive debt service, much of which had been assumed for the CMB acquisition. From 1988 to 2000, the firm's long-term debt-to-capital ratio had grown from 0.9% to 45% while selling and administrative expenses relative to sales grew 2.8% to 4.3%. By year end 2001, Crown's share of the beverage can industry had fallen from 26% to 15% and S&P had downgraded its debt to junk status.

---

46 From Avery's promotion in 1981 until Connelly's death, Connelly continued to sign the annual report with Avery's signature beneath his.

47 *Global Finance*, March 1997, p. 39; *The Philadelphia Inquirer*, November 15, 2000, p. C1.

48 *Financial World*, December 5, 1995, p.22.

With Crown's stock at a 15 year low, Crown announced Avery's retirement as CEO in November 2000 and he stepped down the following January. He retired as chairman in April 2001. By late December 2001, Crown, Cork, and Seal's stock sold for less than $1.00.

It is difficult however to blame Crown management entirely for its troubles. As noted above, external forces also worked against the firm. Furthermore, the firm had a substantial asbestos exposure from a previous acquisition. In 1963, Crown paid $7 million to acquire the Mundet Cork Company, which had a small insulation operation utilizing asbestos. Mundet's insulation business was quickly sold within three months of the acquisition. Although Crown had never sold or manufactured asbestos, it was held liable for more than 70,000 asbestos claims[49] and would pay more than $350 million in asbestos related payments by 2002.[50] Asbestos related payments would continue to rise to $445 million by 2004.[51] Concerns over asbestos liability would eventually be cited as the reason that Crown suspended common dividends to preserve $126 million in cash annually.[52]

As noted above, Crown ended its no dividend policy with the acquisition of CMB. In addition, although the firm still repurchased its stock, common repurchases declined relative to that under Connelly. Under Connelly, 31% of operating cash flow had been used for repurchases; under Avery this declined to 19%. Likewise, the payout yield from common stock repurchases dropped from an annual average of 4.71% to 1.82%. Interestingly, Avery had much less equity at stake than Connelly. As noted above, Connelly's interest in Crown ranged from 14% to 25%. In contrast, prior to 1996, Avery's holdings in Crown were never more than 1%.

In January 2001, John Conway took over as CEO. Conway began selling off assets, including Constar in 2002, and became more focused on its core metal can manufacturing. In 2005, the firm sold its plastic closure business, which had 29 facilities in 13 countries. By 2006 the firm had exited the plastic packaging business and focused back on high margin products in developed and emerging markets. The firm restructured its debt through a junk bond offering in 2003[53] and lowered its debt load from $5.0 billion in 2000 to $3.4 billion by 2007.

Under Conway, the firm's repurchases in 2006-2007 resulted in a payout yield of 3.8%. Additionally, from January 2001 to December 2007, Crown's stock rose by 19.3% annually compared to 3.3% for the S&P 500. Although much larger than the company Connelly left in 1989, the recovery follows much of the recipe initiated by Connelly in 1957: a focus on efficiency and its core business; a reduction in debt; no common dividends; and stock repurchases.[54]

---

[49] *Forbes*, June 11, 2001, p. 54.

[50] *Knight Ridder Tribune Business News*, March 7, 2006, p. 1.

[51] *The Philadelphia Inquirer*, February 6, 2004, p. 1.

[52] *The Wall Street Journal*, December 18, 2000, p. B6.

[53] *Philadelphia Business Journal*, March 4, 2003, p. 1.

[54] *The Philadelphia Inquirer*, August 25, 2005, p. 1.

Abstract

This study shows the payment of cash dividends is not necessary for successful corporate financial management in mature firms. A mature company in a mature industry, the Crown Cork and Seal Company did not pay any common dividends over a 33-year period. Instead, the firm used stock repurchases flexibly to manage the challenges of declining industry growth potential. Crown's share repurchases increased the proportionate equity stakes of board and management members. The high equity ownership of insiders served as a strong signal of management's confidence in the firm. The result of these policies was a focused acquisition strategy funded by internally generated cash that outperformed its peers' diversification strategies.