Restructuring of the Danish Pork Industry: The Role of Mergers and Takeovers, 1960-2010

Abstract

This article examines the origins and effects of the evolution of the Danish pork industry characterized by three main merger waves resulting in 43 realized mergers and takeovers. The findings illuminate - in contrast to the traditional strategically motivated rationale - that the majority of the mergers were realized by cooperatives due to the inability to give the pig farmers competitive yearly refunds vis-à-vis local competitors, to financial difficulties or to the lack of investment capability of one of the merging parties. Despite a high-risky strategy, mergers and takeovers became the preferred consolidation mean due to capital constrains and the 'close' ownership structure of the cooperatives. Moreover, the study demonstrates that the outcomes of the M&A activities were generally positive.

Keywords: Industry Restructuring; Mergers and Takeovers; Pork Industry; Cooperative Firms; Technological Change; Industrial Economics; Agency Theory

1. Introduction

The Danish pork industry, with its large pig production, abattoirs and related companies, has been an important and successful sector historically both nationally and internationally. In 2010, the pig production and pork industry took up a significant share of the total value added, employment and exports of the Danish food industry. More than 40,000 persons are directly or indirectly employed in the Danish pork industry, that exports for more than DKK 28 billion, corresponding to approximately 5% of total Danish exports. During the last fifty years, the Danish pork industry has experienced fundamental changes resulting in a strongly modified terrain.

Through a comprehensive restructuring process with 43 realized mergers and approximately 30 amalgamation attempts, 77 slaughterhouses were reduced to two large meat cooperative business groups, Danish Crown and Tican. While the top five slaughterhouses represented just over 20% of the total number of Danish pigs slaughtered in 1960, the two mega-cooperatives together represented more
than 95% by 2010. Both companies are among the world’s largest exporters of pig meat with 90% of production sold internationally. Measured on turnover and number of employees, Danish Crown is one of the biggest meat processing companies in Europe, and within the pork industry, it belongs in the top five worldwide. While sectors of the food industry in a number of European countries have also experienced a similar restructuring process, the Danish pork industry over five decades has lived through the most profound and dramatic transformation.

The aim of this article is to study the restructuring of the Danish pork industry from 1960 to 2010 and it focuses especially on the role of mergers and takeovers as consolidation strategies. In uncovering the underlying driving forces and mechanisms of the structural development of the Danish pork industry, the article seeks to answer three main questions. The first question concerns whether is it possible to identify the central internal and external factors that had an impact on the outcome of the restructuring process of the Danish pork industry, i.e. its nature and direction. The literature on industry restructuring and M&A activities assigns several possible (competing) set of explanations: Macroeconomic (cyclical) influences following "merger waves", industry "shocks" (i.e. deregulations, technology changes, etc.), industrial economic (market structure) determinants, or company specific (efficiency) explanations relating to value creation and synergy benefits, and/or combinations thereof.

The second question addresses, the role and importance that cooperative enterprises, respectively, privately owned firms played in the process of industry restructuring, and how the issue of corporate ownership in particular influenced the realized consolidation strategies within the industry (i.e. organic growth, mergers, acquisitions, divestments). Historically, the Danish pork industry has been characterized by an ongoing competition between private-owned companies and cooperative enterprises with the latter pursuing other goals and strategies as well as having slightly different capital structures than the former. While the number of privately owned companies in the industry was 15 in 1960 (62 cooperative enterprises), this figure was reduced to zero in 2010. Accordingly, a central question is whether corporate ownership had a significant impact on the choice of consolidation strategies, and in particular whether the numerous realized mergers and acquisitions (M&As) from
1960 to 2010 may be explained by the dominance of cooperative ownership. The third question focuses on the results of the restructuring process in terms of the exploitation of scale and scope economies; integration effects and synergy gains of M&A activities, and whether the M&As were successfully implemented.

This study is based on part of a detailed study of the Danish pork industry from 1960 to 2010. It builds on a large number of business history sources about the individual Danish pig slaughterhouses and other meat processing firms, i.e. private and public archives, newspapers, supplemented by a large number of semi-structured interviews with chairmen, managing directors and other senior executives.

The study seeks to contribute to the existing literature in at least two ways. First, it presents new evidence on the underlying driving forces of the structural evolution of the Danish pork industry over a period of half a century; that is the change in market power and ownership relationships within the industry settings. Only a few earlier studies have dealt with industry consolidation within the food industry and historical studies of agribusiness cooperatives are conspicuous by their absence. In presenting the main evidence of the restructuring of the Danish pork industry, the article largely focuses on the determining factors that affected the negotiation processes of the individual mergers and the motives that characterized the negotiating partners. Moreover, the article attempts to contribute to the existing business and management literature on mergers and acquisitions (M&As) by providing a historical industry case story involving multiple mergers and takeovers. Most of the empirical research on M&As has relied on cross-sectional or individual company case studies. By investigating successive waves of mergers and takeovers in a specific industry setting, the study further contributes to identifying the specific factors and explanations that support, supplement or confront the various theoretical explanations within the field of M&As. Furthermore, it focuses on the importance of the ownership structure on industry consolidation; a frequently overlooked issue in M&A literature.

The first section of the article begins with a brief review of the management and economic literature on the role and importance of M&As with special reference to issues of industry restructuring, i.e. the consolidation strategies companies chose to pursue. The second section provides a historical
introduction to the Danish pork industry and highlights the main characteristics of the distinctive business models of the cooperative sector that gradually evolved over time. The third section examines in details the three merger waves that occurred within the Danish pork industry in the second half of the twentieth century. It presents an overview of the driving forces, the negotiations, the outcomes of the merger and integration processes and the implications for industry concentration. In the fourth section, the determinants and outcomes of M&A activity in the Danish pork industry are related to the various theoretical explanations and hypotheses offered by the existing M&A literature, and the identified patterns of industry evolution are explained and discussed.

2. Industry Consolidation and the Role of Mergers and Acquisitions

The economic, management and financial literature offers a variety of theories and hypotheses about the determinants and outcomes of M&A activity. For example, economic literature explains M&A activities as a consequence of macroeconomic (cyclical) influences following ‘merger waves’ or as a response to industry shocks (i.e. rapid changes in technology, technological disruption, (de)regulation, etc.) that may cause restructuring activity and takeovers. The economic literature also points out that mergers occurring in waves are caused by the availability of capital to finance M&A activity, something that is likely to be cyclical. While a unifying theory of the causes of M&As does not exist, most business and management literature suggests that companies engage in M&A activities to increase the value of the merged firm relative to that of the individual firms through economies of scale and/or through operational, managerial, and financial synergies. For example, resource-based explanations have explored how horizontal (related) mergers provide a means by which merged firms can create value and wealth to the shareholders through resource sharing and the transfer of competences between firms. Moreover, exploiting operational synergies (a combination of operations and knowledge transfer) and financial synergies (i.e. lower cost of capital) through cost reductions and revenue enhancement, lower internal transaction costs, etc. are potential sources of higher firm profitability and incremental cash flow of corporate amalgamations. Cost synergies (economies of scale) are often driven by asset
divestures (staff layoffs, plant closures, etc.), while revenue-enhancing synergies (by more market power) emphasize the redeployment of resources to improve the firm’s profit potential.\textsuperscript{8}

\textit{Industrial organization explanations} have highlighted the importance of market structure on merger motives.\textsuperscript{9} Horizontal mergers can be considered an effective means for industries with excess capacity to rationalize (cost synergies) and induce exits (divestitures), which, in turn, may improve the performance and profitability of the merging firms.\textsuperscript{10} In highly competitive industries characterized by innovation dynamics and efficiency pressure, M&As are primarily motivated by efficiency gains from operational and financial synergies. In contrast, mergers in concentrated industries are driven more by monopolistic collusion motives with the aim of improving market positioning. Through limiting output, raising product prices, and/or lowering factor prices, M&A strategies are pursued to achieve market power. Recently, \textit{finance explanations} have advocated a ‘market driven’ or misevaluation M&A theory to explain high levels of takeover activity over particular time periods or across industries.\textsuperscript{11} During periods of high stock market values, the theory predicts that firms are more likely to be incorrectly valued, giving rise to opportunistic takeovers by overvalued companies.\textsuperscript{12}

Also, \textit{agency and property rights explanations} contribute to the understanding of how the ownership structure of the firm may influence the choice of consolidation strategies, including M&A activities. For a sector such as the Danish pork industry that historically has been characterized by the co-existence of competing organizational forms (cooperatives vs. private investor firms), the literature offers relatively little about the effect of ownership on corporate strategies. Due to the fact that agribusiness cooperatives are not only formed to generate and retain profits (i.e. profit maximization), but rather to provide their cooperative members with market access or other economic benefits, it is not clear whether the explanations observed in the general literature as to what drives M&A activities among private investor firms are the same as those that cause similar behavior among cooperative firms.

The Danish pork industry provides an opportunity to further explore the issues raised in the existing literature on industry restructuring and M&As. Initially, the historical development of the Danish pork industry will be briefly outlined with special emphasis on key characteristics of the sector and its actors.
3. The Danish Pork Industry: Key Characteristics

The Danish pork industry dates back to the 1860s when pioneers like Philip Heyman and Magnus Kjær established private slaughterhouses, with imported Irish technology, and introduced bacon pigs in order to serve the fast-growing British market. In particular after 1879 when Germany left its former free trade policy and imposed a significant duty on live pigs, Britain soon became the major export market for Danish bacon with more than two-thirds of the production sold there; a position that was maintained until the late 1970s.

As is well-known, the cooperative movement in Denmark acquired prominence in the agricultural sector during the 19th century. At the time Denmark experienced a tough constitutional conflict between, on the one hand, the right wing of the parliament, which was dominated by landowners and the elite, and on the other hand, the left wing, which was based on a new and ambitious class of farmers with increasing support from the still embryonic labour class. One of the many manifestations of the self-consciousness of the farmers was the establishment of cooperatives, i.e. voluntary organizations usually formed by associations of persons for the purpose of running a common enterprise, and the members’ role was to govern the enterprise democratically. Historically, the cooperative form builds on the presence of social groups with homogeneous interests. In Danish rural communities, it was roughly equal sized peasant farms, which created the prerequisites for the strong propagation of cooperatives, while in rural regions of which manor houses dominated, cooperatives had difficulties on gaining a foothold. The first cooperative dairy was founded in 1882, and was followed five years later by the first cooperative pig slaughterhouse established in the town of Horsens.

In addition to ideological motives, a number of economic reasons likewise played an important role for the pig farmers to join forces to establish their own slaughterhouses. Firstly, the producers felt unfairly treated in connection with the price settlement and often the purchasers (private merchants) paid too little for the pigs. In most cases the pigs were delivered at the railway stations in the smaller Danish towns, where the pig purchasers at their discretion set a price that did not always reflect the quality and suitability of the pigs for the markets. In addition, the private slaughterhouses dictated the
settlement price because the numerous small producers did not individually have any market power. Secondly, pig producers had to pay extra costs in connection with weighing the pigs, significant commissions to pig purchasers, as well as transport and freight costs especially for those pig farmers who came from rural areas far from the slaughterhouse.

The prevalence of cooperative pig slaughterhouses came through local agitations and successful mobilization of farmers. A tripling of the Danish pig production from 1888 to 1914 (from approx. 800,000 to 2.5 million pigs) fueled by good prices at the British market, increased the need to establish more slaughterhouses. With few exceptions, the newly established cooperatives survived the difficult start-up period, which gave further local incentives to establish more cooperatives. The number of cooperative slaughterhouses quickly increased to 10 by 1890; 26 by 1900; 40 by the outbreak of World War I, and approximately to 60 by the end of the 1930s. Thereafter no pig abattoirs were established. For most of the period, the number of privately-owned abattoirs amounted to between 10 and 20. By 1960, the Danish pork industry consisted of 77 slaughterhouses, of which 62 were cooperatives. Fifty years later the number of slaughterhouses was reduced to only two large cooperative meat-processing manufacturers. The structural evolution of the Danish pork industry is illustrated in Figure 1.

The co-operatives became early significant players in the Danish pork industry, as evidenced by the fact that over half of the total slaughtering in 1900 was made by cooperative slaughterhouses; a proportion that was increased to 65% in 1914. Already by end of 1920s, co-operatives became dominant in the two major Danish food industries, dairy and pork; representing a market share of more than three-fourths vis-à-vis privately investor companies; a proportion that was maintained and increased until 2010. In other parts of the food and agro-industry, cooperatives also gained a certain
extent, e.g. within eggs and seeds, however, with smaller and over time declining market shares (i.e. less than 50% of production volume). On the other hand, cooperatives ceased - totally or partially - within the production of poultry, sugar, bread making, beverage, and agricultural machinery.

In the early history of the Danish agricultural sector, the cooperative organization introduced a long lasting business model that appears to have been strongly competitive vis-a-vis other forms of ownership. Firstly, the business model implied a forward vertical integration from primary to secondary farm activities. Pig farmers established and collectively owned their slaughterhouses, including the specialized meat-processing plants that manufactured products with a higher added value. The cooperative form was based on the members’ efforts to integrate forwards into the processing/distribution chain, albeit jointly because each one was too small to accomplish the task on its own. Together, they could ameliorate the possibility of market failure that they all faced. Secondly, the business model introduced a settlement system with both a delivery right and a delivery obligation. Membership of the cooperative abattoir implied that the pig farmers had the obligation to deliver all of their suppliers within a certain period of time (i.e. the binding period), resulting in a significant degree of loyalty. In the cooperative, the profit to members was distributed in proportion to their turnover with the company, i.e. the monetary value of the pigs delivered. The right to make decisions and the right to residual income (i.e. the portion of earnings remaining when the fixed commitments were met) accrued to the cooperative members.

Later a national settlement price for pigs was established; applicable for all cooperative abattoirs and pig producers. Each week, a common settlement price was fixed based on the realized export sales value obtained the week before (i.e. primarily determined by market conditions on the British bacon market) and all pig farmers obtained the same price per kilogram of meat produced (i.e. for the same level of quality) regardless of the cooperative they were delivered to. On the basis of the calculations of the total earnings for the year (typically in October/November), the abattoir paid a patronage refund to its cooperative members based on the size of individual pig deliveries. The price settlement for pigs, together with the yearly refund, established a fully transparent and risk mitigation system that ensured
a high degree of coherence between the supply and demand of pork. The size of the yearly refund became historically a key financial parameter in the pig farmer’s choice of cooperative abattoir as well as in the slaughterhouses’ never-ending competition for pig supplies.

Thirdly, the business model relied on a close and strong cooperation between the cooperative abattoirs for a number of joint tasks and functions related to both upstream (manufacturing) and downstream (marketing and branding) activities within the agribusiness value chain. In particular, after World War II, a number of joint cooperative enterprises were gradually founded, owned and financed by the slaughterhouses through their membership of the industry association, the Danish Meat Association. On the downstream side, the international sales and marketing organization, ESS-FOOD, founded in 1950, undertook all exports of bacon on behalf of its member abattoirs. Until the mid-1980s, both cooperative and privately owned abattoirs - with a few exceptions - were members of ESS-FOOD. On the upstream side, the Danish Meat Research Institute, founded in 1954, became a national - and later, an international - frontrunner in the development of a range of newly advanced process technologies with particular introduction of labour-saving machinery and equipment in the period from 1960 to 2000, while product development was left to the individual slaughterhouses.

The very close cooperation and the high degree of economic commitment that existed between the cooperative abattoirs created a strong and highly coordinated ‘pig meat value chain’, which contributed to the development of competitive advantages domestically and internationally. Integrated ownership of the pork supply chain also meant building of mutual trust within the cooperative pork industry. Consequently, information asymmetry was reduced; joint research and development and the sharing of best practices were facilitated; the classic ‘double mark-up’ problem was avoided; and possibilities for defining strategies for the industry sector as a whole were enhanced. The combination of basic democratic procedures, trust-building and reductions of ‘information costs’ created a kind of social capital that further strengthened the competitive advantage of the Danish pork industry.

The Danish pork industry expanded its international competitiveness especially from mid-1960s as the Danish exports as a share of total world trade in pig meat (measured in tons) rose from almost 8%
in 1970, to 18% in 1980, and to 19% in 1990. In most years from 1970 to 2010, however, the world trade in pork only accounted for less than 5% of world’s total pig production. With the increasing globalization of the markets after 2000, the Danish market share was fallen to approx. 13% (2010); not least due to declining pig slaughtering in Denmark, and with an increasing number of Danish reared pigs slaughtered in Germany and Poland, respectively. In all years after 1960, the Danish pork exports accounted for about four fifths of production; from the 1990s the percentage of quantity exported (tons) over total pork production even rose to more than 90%.

The sources of competitive advantages were primarily due to a highly integrated value chain: A good quality of the raw material offered to the right price; a strong veterinary status; delivery reliability, and long-term customer relationships. By defining technical standards - especially in cutting technology - and by being able to manufacture precisely metered pieces of pork fitting directly into the machinery of the processing industry in importing countries, competitive advantages in the sales of bacon, pork cuts and intermediate products were continuously developed over time. In addition, the Danish pork industry established a high degree of flexibility and adaptability when the demands of the major export markets such as the United Kingdom (bacon), Japan (pork cuts) and the USA (canned hams) were depressed or failing. Instead, these exports were directed towards other markets; a discipline not least ESS-FOOD was highly competent to implement. With the opening up of new markets in Eastern Europe, Russia and Asia, and with the developments of the EU’s internal market program of 1992, the Danish pork industry further strengthened its exporting capacity through the 1990s and onwards.

Figure 2, which illustrates the development of Danish pork exports over five decades, shows that previously dominant British bacon market was declining from the late 1970s, while the Japanese high price market for pork cuts (i.e. liberalized from the beginning of 1980s), and the German market for hams etc., increased their significance through 1980s. From 1990s - with the completion of the EU Single Market - other EU countries became increasingly important as well as Danish pork exports were wider composed in terms of products (cuts, ham, bacon, sausages, fresh meat, ready meals, etc.). From
around 2000, the driving forces of globalization forced the Danish pork industry to change from a previous export-based strategy to one more based on foreign direct investments (FDIs). On the one hand, new market openings meant that countries such as Poland, China, Australia, Vietnam and Russia became important exporting and investing targets for Danish pork. On the other hand, there was a massive pressure on costs, with major consequences for the international division of labor and a resulting offshoring of jobs. In particular, the Danish pork industry had difficulties in competing on (labor) costs, why it became advantageous to outsource the labor-intensive boning and processing activities to other countries. Furthermore, the pressures from the major retail chains, partly in relation to new product introductions and partly on food manufacturing prices, influenced the competitiveness of the Danish pork industry negatively.

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Figure 2 about here

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4. **Three Merger Waves in the Danish Pork Industry, 1960-2010**

In the period 1960-2010, the Danish pork industry witnessed a total of 43 mergers of which 20 were takeovers, i.e. where one company buys a controlling interest (e.g. shares) or takes over the assets of another company, see Table 1.\(^{32}\) Almost half of the mergers were realized from 1970 to 1978, all of which were regionally-based amalgamations with typically two or more participants. After 1990, the pace of the merger process dampened, which subsequently led to the formation of a few, however, very large slaughtering business groups within the entire period under consideration. Approximately four fifth of the mergers were signed between two slaughterhouses; in twelve cases more than two abattoirs entered into an amalgamation. In addition, a large number of merger attempts were made (estimated at about 30),\(^{33}\) which for some reason failed, either because the cooperative members voted the merger proposal down or disagreed about the terms and conditions of the merger. Also, a few strategic alliances
and cross-holdings were realized, often an initial step to a merger, but they were seldom used as a long-term consolidation strategy. Appendix 1 gives a more detailed picture of the individual mergers and takeovers.

Table 1 about here

The consequences of the restructuring process are shown in Table 2. In addition to a considerable reduction in the number of slaughterhouses from 77 to 2, where no privately owned investor companies survived, the number of slaughtering plants, bacon and canning factories was greatly reduced from 77 to 10. The net figures cover a large number of plant closures, reorganizations, and integrations of existing plants, but they also comprise a number of new establishments (mainly three large slaughtering facilities that were built in 1974, 1977 and 2002, respectively) and smaller facilities (cutting and deboning factories).

In general, the pattern of development was characterized by downsizing and closures of slaughter plants. By the end of the 1960s, a number of privately owned slaughtering plants were closed in connection with acquisitions that were carried out by cooperatives. In the merger process that took place within the cooperative slaughterhouses’ own circle, a large number of facilities and factories were closed in the 1970s and 1980s. In some cases, they were closed immediately after the takeover; in others, some time passed before the closures were realized. Several slaughtering plants were rescheduled for cutting and deboning activities or for sausage and bacon production. Some factories were rebuilt into sow slaughterhouses or continued as cattle slaughterhouses. In this way, jobs and industrial activities were maintained in the small towns, and, in some cases, were even expanded.

In the 1980s and 1990s, fewer but larger factory closures were realized, in particular in the restructuring of canned meat production. From 2005, a new stage of development occurred with a
number of large factory closures and offshoring of jobs due to globalization (i.e. cost reductions). Not only were slaughtering facilities downsized but deboning and cutting activities were also closed down, with the transfer of production to newly acquired meat-processing companies abroad, especially in Germany and Poland.\textsuperscript{35} During most of that period, the number of jobs within the Danish pork industry was approximately 14,000, however, with a tendency to a slightly decrease. From 2004, employment fell sharply and by 2010, the industry employed approximately 8,000 slaughterhouse workers in total. Although the number of slaughterhouses became fewer and larger, the period was simultaneously marked by a sharp increase in pig production as well as in the number of pigs slaughtered. While the number slaughtered amounted to about 9 million in 1960, this figure increased to about 15 million in the late 1970s to further grow to over 20 million by the end of the 1990s, but fell to about 17 million in 2010.

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\section*{4.1. The prelude, 1960-68}

In 1960, the Danish pork industry consisted of 62 cooperatives and 15 private slaughterhouses, with the cooperative slaughterhouses accounting for the vast majority of the pigs slaughtered (close to 90%).\textsuperscript{36} The privately owned abattoirs belonged to four main company groups. The largest was Plumrose that particularly had specialized in meat processing products such as canned ham, bacon and sausages with large exports to the US and British market. The company received raw materials and semi-manufactured products from its two slaughterhouses. Plumrose was considered as the strongest privately owned competitor especially after it was acquired by Østasiatisk Kompani (East Asian Company) in 1965; a major international trading company and Denmark's largest business group.\textsuperscript{37} Three groups were in foreign ownership: J.D. Koopmanns, Factory Holding Company and The Cooperative Wholesale Society (C.W.S.). The foreign investors were primarily motivated by the desire to ensure the supply of bacon to the British market, i.e. backward vertical integration.\textsuperscript{38} The dominant
type of production in the sector as such was slaughtering and bacon manufacturing and the
slaughterhouses varied in size. In 1960, the degree of industry concentration was modest with the five
largest pig slaughterhouses accounting for one-fifth of the total number of pigs slaughtered; the top ten
accounting for about one-third.

Through the 1960s, the issue of restructuring and consolidation was heavily discussed by several
industry committees and experts. In reports and capacity studies, it was documented that the unit costs
of producing and marketing pork could be reduced considerably by implementing local and regional
mergers of existing slaughterhouses. In particular, the leaders of the industry association, the Danish
Meat Association, had great hopes for industry restructuring, and the association was especially
preoccupied with concentrating the national production of pig meat around the joint marketing
organization, ESS-FOOD, eventually in the form of a large national amalgamation of all cooperative
slaughterhouses. Proponents of a highly coordinated and merged industry highlighted the importance
of market power, scale and scope economies that would give the Danish pork industry better
opportunities to manage its meat suppliers (i.e. both in terms of quantity and quality) as well as ways to
implement joint- and necessary- investments into plants and product development. Furthermore, close
cooperation between the cooperatives or merged entities could help to avoid unsuccessful investments
and/or duplication of investment costs.

However, numerous barriers appeared to dampen industry restructuring in the 1960s. Firstly, a
significant local patriotism existed. Local patriotism prevailed due to the fact that the parishes and
smaller urban areas virtually acted as isolated communities with few connections to the outside world.
Solidarity and loyalty towards the local cooperative abattoir was strong and unabating; at least as long
as the local pig slaughterhouse was able to pay the suppliers a competitive settlement price, including a
high yearly refund. Secondly, many cooperative members feared losing influence of their
slaughterhouse by joining together with another slaughterhouse. Resistance to mergers was especially
justified by the fear of being ‘taken over’ by a major slaughterhouse, resulting in loss of identity including
a weakening of member democracy; an important element of the cooperative movement at that time.
Later, the resistance to mergers was instead justified by the uncertainty surrounding whether the merger would result in sufficient financial compensation to the owners of the slaughterhouses.\textsuperscript{41}

From the mid-1960s, various attempts to merge local slaughterhouses into larger regional ones failed. In 1964, an amalgamation of five cooperatives from the northern part of Jutland (covering 7\% of the pigs slaughtered nationally) was close to becoming a reality. However, lack of support from the cooperative members due to local patriotism and administrative barriers (i.e. the existence of differences in regulations and voting rules among the negotiating companies) meant that the plan remained unrealized.\textsuperscript{42} The first big merger was realized on 1 January 1968 when seven cooperative slaughterhouses on the Island of Zealand amalgamated with another five slaughterhouses a few months later. The new company, Forenede Sjællandske Andelsslagterier [United cooperative slaughterhouses of Zealand] - or simply FSA - became the largest slaughterhouse in Denmark with about 1.5 million pigs slaughtered per year (about 10\% of the national total); owned by approximately 17,000 pig farmers. The original plan was to merge all cooperative abattoirs in Zealand; however, two abattoirs did not want to be a part of the big merger. After a short period of close cooperation - a kind of strategic alliance; the two companies merged in 1972 with the formation of Nordvest. In the following decade, the separation of Zealand into two large cooperative slaughtering groups led to a struggle between FSA and Nordvest on pig deliveries as well as fierce competition for the yearly refunds.

4.2. \textbf{Regional Mergers, 1969-78}

The first merger wave occurred in the period 1969-78. It was partly caused by the need for rationalization and investment in labor-saving machinery and equipment and partly as a consequence of Denmark's entry into the European Economic Community (EEC) on 1 January 1973. The combination of a strong increase in Danish labour costs and a shortage of slaughterhouse workers throughout the 1960s highlighted the need for capital-intensive investments. The necessity to conduct investments into new process technologies was moreover caused by new veterinary requirements and legislation as a
result of Denmark’s entry into the EEC, including the possibility of obtaining export authorizations to the U.S. market.43

Typically, this merger wave followed a specific pattern, which involved two or more neighboring slaughterhouses within the same province or regional area - Jutland, Zealand and Funen – joining together. The competition for suppliers and the yearly refund to pig farmers was either local or regional. The regional competition was especially strong in ‘border areas’ where pig farmers had two or more alternative abattoirs to choose from, due to transport reasons. Within the first merger wave, it was the slaughterhouse's inability, in almost all cases, to give its pig farmers a competitive yearly refund vis-a-vis local competitors that evoked merger negotiations. Also, financial difficulties or lack of investment capability of one of the merging companies caused an amalgamation. By the end of the 1960s and early 1970s especially, several slaughterhouses ran into trouble because they failed to invest in new technology (i.e. the carcass chilling tunnel and the bacon pickle injector).44 Most often, the smaller and weaker consolidated slaughterhouses chose to merge with a financially stronger competitor.

Within just four years - from 1969 to 1972 - the number of slaughterhouses was reduced from 52 to 25. At that time, the private abattoirs in foreign ownership were run-down, and their British owners had not invested in new machinery or slaughter technology for years. As wholesalers or trading companies, they also wanted to phase out their manufacturing interests and to concentrate on retail trade. EAC Plumrose as well as the cooperatives was interested in taking over the foreign owned slaughterhouses in question. Consequently, the cooperative slaughterhouses joined forces and acquired Koopmann and Factory Holdings respectively, while Plumrose took over half of the shares of the Herning-Skjern group owned by C.W.S.45 By 1970, only three privately owned slaughterhouses were left.46

In the first month of 1970, three cooperative slaughterhouses located in the East Jutland region merged and in 1971/72, after several rounds of negotiations and reconciliations, two additional abattoirs joined the new merger, Østjyske Andelsslagterier (Ø.A.S.).47 Discussions about mergers, however, were a much more complicated issue in the region of Southern Jutland. They started with negotiations around a larger combination of seven potential participants. Later, the talks became more
selective, with two to three slaughterhouses in close and confidential discussions. However, the attempt to create the big regional amalgamation failed and, against this background, three slaughterhouses close to the German border agreed to merge to form Slagteriregion SYD (1970), while a competing group of three in 1971 joined to form Sydvestjyske. In the northern and western region of Jutland, the cooperative slaughterhouses followed a similar pattern. The next major mega-merger took place in October 1971 with the formation of Tulip, consisting of six cooperative slaughterhouses located in the mid Jutland region with a total turnover of DKK 1 billion and about 1.4 million pigs slaughtered per year. The amalgamation was considered a ‘marriage of convenience’, partly because the coordination and reorganization of production potentially resulted in substantial financial gains, and partly because the geographic and product fit across the six abattoirs was good.48

From 1974-77, the restructuring process came almost to a standstill, with stagnation in the number of pigs slaughtered, resulting in increased competition for pig supplies. The period was also characterized by an economic downturn due to the two oil price crises in the years of 1974 and 1979. By 1979, measured by the number of pigs slaughtered, the following companies were among the top five: FSA (1.6 million.); Tulip (1.5 million.); Østjyske (1.1 million.); Wenbo (920,000), and Struer-Hurup (750,000), represented a total of 45% of pigs slaughtered nationally. In spite of the huge number of realized mergers, the degree of industry concentration was still modest.


The second merger surge took place between 1979 and 1988, resulting in a further reduction in the number of slaughterhouses from 21 to 9. The period was characterized by increased competition for pig supplies helped by shorter binding periods of the cooperative members. However, industry restructuring was also influenced by other factors. On the one hand, the number of pigs slaughtered increased from 12 million in 1979 to 14 million in 1988, with settlement prices fixed at a high level until the mid-1980s. On the other hand, the period was marked by soaring prices of agricultural land and by poor financial conditions for especially younger and newly established pig farmers, many of whom were...
facing debt crises. Most of the newly established pig farmers had invested heavily in land, stables and equipment with borrowed money.\textsuperscript{49}

A significant turmoil in the domestic pork market and a lack of member support for the joint marketing organization, ESS-FOOD evolved around 1980. For several decades, all the cooperative and privately owned slaughterhouses had strongly supported ESS-FOOD as export organization for the sale of Danish bacon to the British market; the largest exporting market representing more than 60 \% of total Danish pork exports. The result of the 1970s mergers and takeovers, however, had created increasing conflicts of interest in export markets, thereby challenging the cooperation within ESS-FOOD. Instead of using ESS-FOOD as the primary export sales organization, the larger regional mergers wanted to establish their own exporting channels.\textsuperscript{50} The political issue was not just about the British bacon market, but also concerned the new and growing Japanese market for pork cuts; a high price market that was gradually opened from around 1972, when the Japanese import regulations were liberalized and Denmark became a first mover. In relation to the Japanese market, a conflict of interest occurred about whether member companies should have complete freedom to export their products without interference from ESS-FOOD.

Moreover, several members increasingly criticized ESS-FOOD for not being powerful and cost-effective enough relative to the trading company's marketing efforts.\textsuperscript{51} In particular, Tulip, with its profile as a pork meat processor, had a desire to leave ESS-FOOD. In 1983-84, six cooperative slaughterhouses (Tulip, Struer-Hurup, Danish Crown, Nordvest, SYD and EXPO-Fyn) withdrew from ESS-FOOD after long and futile negotiations about their continuation as members. The resulting disintegration of ESS-FOOD had a decisive influence on the further restructuring of the Danish pork industry from the mid-1980s. Consequently, a power struggle broke out between the ten slaughterhouses that wanted to preserve and further develop ESS-FOOD as a joint sales company and the six slaughterhouses that left the organization.\textsuperscript{52}

In the period 1979-88, other slaughterhouses merged. Most significantly was the amalgamation of a group of cooperative abattoirs located on the island of Funen with the formation of a new company,
EXPO-FYN in 1980. However, conflicts of interest, local patriotism, and lack of mutual confidence in the participating boards of directors blocked merger negotiations several times in the mid-1960s, and in 1971-72. The EXPO-FYN merger, however, existed for only five years. This short period was marked by a power struggle within the management team of the company, and a weak and divided board, who failed to decide on how to reap potential synergies out of the merger. The management team of EXPO-FYN clearly underestimated the process of transformation from being small and manageable abattoirs to becoming a much larger and more complex business group. After a dramatic sequence of events in 1985, the large neighboring meat processor, Tulip, took over the ailing and rundown EXPO-FYN and got access to about 900,000 pigs (8% of pigs slaughtered nationally). The realized takeover, however, had significant financial consequences for the previous cooperative members of EXPO-FYN: They had to pay an upfront financial compensation of DKK 82 million, because of the liabilities and claims they had brought into the merger. Moreover, they had to accept no refund in the year following the takeover, and reduced refunds in the subsequent two years. The sudden and rapid decline of EXPO-FYN was one of the major business scandals in Denmark in the 1980s. Tulip merged shortly after with Sydøstjyske (1985).

While the establishment of fresh food terminals on the domestic market was highly controversial in Denmark in the mid-1980s, the discussions also gave rise to opportunities for strategic collaboration. In 1984, Quality (former Herning-Skjern), Royal Dane (Holstebro), and Jutland signed a joint agreement firstly, to establish a new fresh food terminal located in southwest of Jutland and secondly, to cooperate closely in marketing to the domestic market. The strategic partnership quickly fizzled out and subsequently Quality and Royal Dane - the last two privately owned slaughterhouses - merged in 1985 after the latter was unable to pay its pig suppliers a competitive yearly refund. The same history occurred when Vestjyske Slagterier was formed in 1986 as an amalgamation between Struer-Hurup and Celebrity; primarily triggered by major financial problems of the latter. In the northern part of Jutland, Wenbo and Nørresundby merged after a joint acquisition of a smaller meat-processing firm, Meat Cut A/S.
On the island of Zealand, where the supply of pigs was divided between FSA and Nordvest, the national discussions on fresh food terminals facilitated cooperation between the two companies. In early 1980, the two companies entered into a 25-year cooperation agreement, including a production-sharing agreement and a framework for future joint investments.\textsuperscript{55} The cooperation agreement, however, collapsed shortly after the ink on the contract was dry due to disagreement concerning a major supply contract to a retail chain. FSA and Northwest nevertheless collaborated again when they jointly acquired Food Denmark A/S in 1986, a manufacturer of canned meat and ready-made meals jointly owned by EAC-Plumrose and FDB (a major retailer chain). In the final months of 1987, a merger between FSA and Nordvest eventuated after both companies had recruited new people to key management positions. With the amalgamation, the past disputes on the island of Zealand were buried with all pig farmers supplying the same business group, Steff-Houlberg; the new name for the merged entity.

By the end of 1988, there were nine cooperative pig slaughterhouses left, namely Vestjyske, Tican (previous Thisted-Fjerritslev), Wenbo, Jutland, østJYSKE (previous Østjyske), Tulip, SYD and Steff-Houlberg, and the privately owned Royal Dane-Quality A/S. Under the second merger wave, the degree of industry concentration was significantly increased with the top five representing a total of 77% of pigs slaughtered nationally.\textsuperscript{56}

4.4. The Struggle for National Supremacy, 1989-2002

By the late 1980s, the Danish meat-processing industry (i.e. the manufacturing of canned meat, sausages, and ham etc.) ran into serious financial problems due to a number of factors. Two cooperative business groups, Steff-Houlberg and Tulip, in particular, were severely affected. The problems arose partly due to falling export prices of canned hams and the depreciation of the US dollar and partly because of a significant increase in the domestic price of raw materials and intermediate goods. While Steff-Houlberg acknowledged great financial difficulties after the hazardous acquisition of Food Denmark A/S in 1988\textsuperscript{57}, Tulip was close to bankruptcy due to problems stemmed from inability to exploit economies of scale in production and optimize the product range of the company.\textsuperscript{58}
Tulip was saved due to a huge capital inflow from institutional investors (i.e. pension funds, insurance companies, and employee foundations). Tulip was divided into two parts: slaughterhouse and meat processing, the latter being restructured and reorganized with several (cooperative) owners, and merged with a number of other meat processing facilities into a new investor-owned joint venture, Tulip International A/S. In October of 1990, the slaughterhouse part of Tulip was merged with østJYSKE and Wenbo with the formation of Danish Crown, a new cooperative business group giant with approximately 45% of the pigs slaughtered nationally (i.e. 7.3 million); a total turnover of DKK 10 billion and with more than 6,300 employees. About the same time, Jutland was taken over by Vestjyske Slagterier due to financial problems in Jutland and to overinvestment in a new production facility. The new merger formation, Vestjyske Slagterier, accounted for a total of 3.2 million pigs slaughtered; a turnover of close to DKK 4 billion and about 2,000 employees.

In the following decade, a battle for national supremacy evolved with Vestjyske Slagterier and Danish Crown as the new industry giants. A close combat to deliver competitive refunds and to attract new pig suppliers set the scene for the two rivals. Moreover, an intense struggle for customers both nationally and internationally evolved, in which a kind of “crowding out competition” between the big Danish pork exporters unfolded with lower sales prices and squeezed profits as result. The meat processing part of the pork industry became the new battlefield for fierce competition between the two rivals partly because of the close ownership links between Danish Crown, Tulip International and ESS-FOOD (of which Steff-Houlberg and Tican were allies to some degree) and partly as a result of Vestjyske’s acquisition of a number of meat-processing plants in the UK and the US; all takeovers from EAC-Plumrose in 1992/93.

Immediately after the formation of Danish Crown in 1990, an attempt was made to establish a joint domestic marketing organisation involving Danish Crown and the privately owned Royal Dane-Quality, but it failed. In an effort to deliver fast results to its pig suppliers, Royal Dane-Quality, however, experienced serious financial difficulties in 1991, including a huge loss from foreign currency speculation carried out by the chief finance officer of the company. Subsequently, a loss of some pig
suppliers made the company open for a hostile takeover. In late 1991 after an intense negotiation process with both Danish Crown and Vestjyske involved, Vestjyske took over Royal Dane-Quality and saved the company from bankruptcy. The story repeated itself when SYD became involved in financial difficulties in 1994 as a result of a fraud in its German sales subsidiary and an unsuccessful food catering investment adventure in East Europe. Again, Danish Crown and Vestjyske struggled in taking over SYD, and unlike the situation in 1991, Danish Crown succeeded in making a bid that convinced the cooperative members of SYD to merge.

The debate about a national amalgamation of all slaughterhouses flared up again around 1993/94. At that time, the Danish pork industry faced a severe market situation, in particular, on the Japanese market for pork cuts. In order to avoid rising Japanese import regulations, Danish Crown and Vestjyske had established their own sales subsidiaries; most likely a circumvention of the Japanese trade rules. With the risk of losing a large Japanese market and with the prospect of a lengthy internal Danish competition between the two rival companies, the Danish Meat Association intervened by proposing a national slaughterhouse amalgamation. It never came to real negotiations, since the two medium sized slaughterhouses, Steff-Houlberg and Tican, were against a national amalgamation and in fact there was no support for the mega-merger from Vestjyske either (i.e. the CEO was strongly against).

In the late summer of 1998, a historic decision was made when the merger between Vestjyske Slagterier and Danish Crown became a reality, with the name Danish Crown chosen for the new formation. Up until the decision, both rival companies had been busy with downsizing and restructuring their businesses, and with integrating the acquisitions and takeovers they had completed. Within a few years, Vestjyske especially experienced tremendous growth, not least due to the merger with Royal Dane-Quality and a number of foreign acquisitions (EAC Plumrose’s manufacturing plants in UK and the US), which apart from growing indebtedness called for increasing rationalisation of production lines. Moreover, the increasing complexity of the company led to a number of unresolved organisational challenges that forced the managing director of Vestjyske to retire. Danish Crown had also expanded its activities heavily by virtue of the merger with SYD. As a major shareholder in ESS-FOOD and Tulip
International respectively, both of which were struggling with poor financial results, Danish Crown was strongly involved in the management of the two companies.\textsuperscript{62}

The new management of Vestjyske took the initiative for merger negotiations and over a couple of months the managing directors of the two business groups succeeded in preparing an attractive model of amalgamation that was beneficial to both parties. Officially, the merger was conducted in recognition of the fact that the continuing rivalry between the two cooperative business groups would be financially damaging for the cooperative members on both sides. The merger was portrays as 'equal' in the sense that neither company acquired the other and with the same financial conditions for the two groups of cooperative members. While the merger negotiations were quickly completed, the subsequent treatment by antitrust authorities (i.e. The Danish Competition and Consumer Authority and the EU Commission) took more than half a year. The EU Commission issued a number of strict conditions that had to be met if the merger were to be approved. The conditions had far-reaching consequences for the entire Danish pork industry, including (i) an introduction of split deliveries of pigs; (ii) the abolition of the national price settlement of pigs; (iii) the dissolution of ESS-FOOD\textsuperscript{63} as well as other forced means with the aim of avoiding competitive distorting effects of the merger on the domestic market, in particular. In October 1998, Steff-Houlberg and Tican were bought out of ESS-FOOD, and the trading company became a 100% subsidiary of Danish Crown.

The 'Pac-Man Game' that had characterized the restructuring of the Danish pork industry since the mid-1960s - with the largest and financially strongest slaughterhouses 'consuming' the smallest and the weakest - reached its preliminary culmination around 2001/02 with the mega-merger between Steff-Houlberg and Danish Crown. The merger was initiated as somewhat of a coincidence: Danish Crown proposed an amalgamation of the bone meal factories, Daka and Kambas, owned respectively by Danish Crown and Steff-Houlberg. Steff-Houlberg was interested in the offer, but was at the same time in financial difficulties partly as a result of many years of debt, partly due to relatively high average slaughtering costs vis-à-vis Danish Crown and partly because the company had lost a few, however, big retail orders to Danish Crown on the domestic market for pre-packed and processed meat. At the same
time, the two companies fought fiercely against each other. Immediately upon the merger between Danish Crown and Vestjyske in 1998, Steff-Houlberg had aggressively attracted a large number of pig suppliers from Jutland by offering them special delivering conditions and financial compensations. As a consequence, Steff-Houlberg succeeded in attracting half a million extra pigs at the expense of Danish Crown. Danish Crown responded by sharply reducing the prices of its processed meat products and, in turn, Steff-Houlberg lost a number of retail contracts and turnover. Consequently, Steff-Houlberg was financially under so much pressure that it had to give up.

The amalgamation agreement meant that the cooperative members of Steff-Houlberg had to pay a moderate financial compensation to Danish Crown due to the debts and liabilities they brought into the merger, however, at a relatively modest price. More than 90% of the cooperative members on both sides supported the proposed merger and by October 2002 the merger was finalised with Danish Crown as the name for the continuing enterprise. Formally, the merger had to be approved by the EU, which also happened, implying a number of new strict conditions and obligations. By the end of 2002, the Danish pork industry landscape was once more considerably changed with only two large cooperative meat-processing business groups left: Danish Crown and Tican.

5. Explaining Merger and Takeover Activity in the Danish Pork Industry: Antecedents, Patterns and Outcomes

Based on evidence about the evolution of the Danish pork industry from 1960 to 2010, a number of significant development patterns and characteristics of the restructuring process can be identified. Firstly, the structural development proceeded in a number of distinctive, time-limited waves characterized by an increasing degree of industry concentration, predominantly caused by a response to economic and/or technological pressures rather than for strategic reasons. Secondly, the industry restructuring was largely dominated by horizontal M&A strategies in contrast to alternative consolidation strategies and with the co-operatives in the leading role. Thirdly, the M&A activities led to relatively successful integration outcomes with major closures, rationalizations and product
specialization. In the following section, the above-mentioned development patterns will be discussed with a view to identifying the determinants and outcomes of M&A activity in the Danish pork industry. Industrial organization explanations, resource-based explanations and agency theory explanations will be included in the discussion.

5.1. **The occurrence of M&A activities in waves and distinct patterns**

The historical study of the Danish pork industry has identified three merger waves over a period of five decades. The merger and takeover processes, however, did not begin to accelerate until the early 1970s after a decade of failed attempts; mainly caused by local patriotism and resistance from cooperative owners. The M&A literature has only marginally reported on the factors that determine whether or not a targeted firm would be taken over and there was only limited empirical evidence on the causes of abandoned proposed mergers. In particular, it has been argued that because proposed mergers may be perceived by managing directors, who are not owners of the firm, as a direct threat to their careers, they may offer some resistance. The evidence from the Danish pork industry shows a few examples, where the managing director (or the chairman of the board) was against a merger (in particular, the early merger attempts on the regions of Fyn and Jutland). However, the employers’ organization of the pork industry was clearly aware of the issue and by the mid-1970s, the organization negotiated a new director contract, which secured slaughterhouse directors a lifelong pension and appropriate compensation in case of exemption after the concluded merger; an initiative that made the merger negotiations easier to implement.

The subsequent occurrence of mergers in waves may be explained by different sets of factors of which traditional industrial organization explanations seem to dominate. The first wave, in particular, was fostered by scale-intensive technological change and as a result of Denmark's entry into the EEC by 1 January 1973; a kind of external shock. Although changes in macroeconomic conditions affected various industries and firms in Denmark differently, the Danish pork industry came under intense pressure due to overcapacity, and increasing and relatively high labor costs; factors that called for rationalization. The forthcoming entry into the EEC also implied that all Danish slaughterhouses had to adapt to a new set
of veterinary requirements and changes in agricultural legislation that required new investments in technologies and facilities. However, due to the lack of ability to invest in new process technology (e.g. the carcass chilling tunnel and the bacon pickle injector), a large number of smaller (and unprofitable) abattoirs were challenged. The situation forced them to merge with larger and financially stronger slaughterhouses in order to reduce costs and to operate on a more efficient scale. Typically, a larger neighboring slaughterhouse was poised to take over the supply of pigs with prospects of reaping higher capacity utilization in its plants. With a market characterized by "crowding out" competition such as the Danish pork industry in the 1970s and 1980s, horizontal M&A activities were further provoked. When one company decided to acquire a competitor and make rapid investments to increase its productive capacity for the purpose of preempting entry or investment by rivals, other companies followed by strengthening their position by reducing their costs in order to compete at the lower cost structure. Thus, consolidation by one company resulted in similar consolidation of other companies within the same industry.68

The second and third wave led to a split among cooperative slaughterhouses primarily in relation to the trade organization ESS-FOOD, which historically had served as a cartel for the smaller cooperative slaughterhouses in carrying out their common export interests on the British market. The reasons for the split may be found in the industrial organization explanations, where cartel theory specifies a number of conditions for a cartel's survival.69 The cartel members should have common goals in terms of what the participants want to achieve; the members should by few in numbers and be roughly the same in size, and they should be technological similar and/or offer fairly similar products, since diversity will cause the individual enterprises to stand out and pursue their own specific objectives.70

In case of ESS-FOOD, the above conditions were no longer present by the early 1980s, which was primarily due to the changes in power relations within the industry in the wake of the many mergers and takeovers. Furthermore, the increasing rift among cooperative slaughterhouses was largely caused by divergent strategic interests in relation to export markets: the difference in size of the companies was greater than in the past; the companies' exports of pork products and their market interests were
more differentiated (i.e. more disputes about export market strategies), and the merger process had generated greater variation in cost structures among the slaughterhouses. Against this background, a group of slaughterhouses wanted to continue cooperation with ESS-FOOD, because they found that unity around bacon exports was still important to maintain a strong competitive position vis-a-vis more aggressive Dutch and Irish competitors, and to obtain attractive sales prices through a joint Danish marketing effort on the British market. Another group was primarily interested in establishing its own export channels and did not want to submit to the cartel’s constraints with respect to export markets.

The result was a cartel in gradual rupture, but also emergence of new alliances that marked the start of a struggle for national supremacy, which in turn influenced the merger process in the years to follow. Two alliances were formed: the slaughterhouses that were a part of the ESS-FOOD cooperation on the one hand and Vestjyske on the other. Thereby, monopolistic collusion motives became important explanations for M&A activities, since the aim of the rivalry was to improve market positioning and finally to out-compete the other group. The third period from 1990 to 2002 produced a duopoly market structure with two very large and dominant business groups - Danish Crown and Vestjyske - with the other slaughterhouses on the sideline at risk of being taken over.

5.2. The dominance of horizontal M&A strategies

The evolution and restructuring of the Danish pork industry did not happen as a result of cross-industry mergers between agribusiness companies (i.e. slaughterhouses, foodstuff firms and dairies) or as a result of backward vertical integration with wholesalers and retailers as owners of the slaughterhouses. Instead, the restructuring of the Danish pork industry was a struggle between privately owned companies and cooperatives on the one hand, and later a struggle between larger and larger cooperatives to achieve national supremacy on the other.

Despite the fact that the Danish pork industry has historically been dominated by co-operatives, it was not a natural matter that this form of ownership survived and even expanded its position vis-à-vis privately owned slaughtering houses as they did. The prevalence and strength of the cooperative
slaughterhouses achieved early (i.e. already at the turn of the 1900s where they to some degree controlled the supply of raw materials and price formation on pigs at the domestic market) gave them a number of benefits in terms of lower transaction costs and lower market uncertainty vis-à-vis privately owned firms. On the other hand, the inherent (economic) weaknesses of the cooperative form, i.e. vaguely defined property rights, insufficient control over management, short term investment horizon, problems in raising equity etc., hampered the development of the cooperatives particularly with respect to capital formation.

Throughout the period, the private investor-owned companies appeared to have less market power vis-à-vis the cooperatives. In addition, they had lower market share with regard to deliveries and had difficulties in offering the pig farmers attractive prices for their supplies due to greater demands on return on capital to their owners. Moreover, they were smaller with lack of opportunities to exploit economies of scale and they faced a current earning squeeze. Therefore, privately owned slaughterhouses had difficulties in engaging in the restructuring of the Danish pork industry and instead they became the victims of industry consolidation.

In contrast, the members of the cooperative abattoirs were highly interested in actively contributing to industrial restructuring partly due to their major asset-specific investments in machinery, land, perishable output, and facilities, and partly to ensure the future channels of distribution for their pig supplies. Cooperative members as ‘users’ of their companies were less concerned about the return on equity compared to private investors. Their main objective was to receive a rewarding payoff in terms of higher prices for their products, including a high yearly refund. For cooperative members, mergers and takeovers were, in principle, effective means to achieve these objectives with intentions to exploit cost synergies and induce exits (divestitures), which in turn would improve the profitability of the merging firms, and ultimately the pig farmers' earnings.72

The cooperative form prevailed at the expense of private investor ownership first and foremost due to the cooperative members’ loyalty both in terms of deliveries (solidarity with the raw materials) and to the continuation of their companies (avoidance of bankruptcy). Since cooperative members had
committed significant financial capital of both their farms and in the jointly owned companies, they typically optimized their investments on the basis of a combination of the expected economic results at both individual farm level and at cooperative (company) level by extracting maximum rents from their asset-specific investments. In the case of a financial crisis of a cooperative slaughterhouse, other cooperatives were ready to take over pig deliveries and through a merger take over any other commitments that may be. Alternatively, if a cooperative slaughterhouse had gone bankrupt, pig farmers could have lost all their retained ‘patronage funds’, and in addition, they might also have had to find new buyers for their supplies.

In the choice between various consolidation strategies, mergers and takeovers are generally considered as a high-risk strategy vis-à-vis other strategies (e.g. cooperation, alliances, and organic growth) due to the complexities, amongst other things, of integrating two or more firms. In the case of cooperatives, it does not need to be so complicated, especially if one cooperative firm merges with another. As suggested by agency and property rights theories, capital constrains may be seen as the prime motive behind a cooperative’s involvement in M&A activity; first and foremost due to the specific nature of the property rights and residual claims of the cooperative firm. Compared to residual claims in investor-owned firms, the cooperative residual claims are of a special type. The cooperative firm is owned by a cooperative society composed of a number of members (i.e. pig farmers) often with conflicting interests due to varying ages and risk profiles. The members have hardly any individual property rights to the cooperative firm; they simply own the monetary value of their shares in the cooperative society and thus their residual rights cannot be transferred to new owners at a stock market price as in investor-owned firms. Therefore, the dispersed and ‘close’ ownership structure challenges a cooperative’s ability to raise equity capital from external financial sources.

While equity financing of cooperatives is traditionally facilitated through member contributions to the cooperative through retained ‘patronage funds’, bank financing (debt) or bond issuance for the bulk of its capital needs, equity is not capitalized in tradable shares. In turn, it means that cooperatives are not able to issue preference shares by raising new equity but instead have to use more leverage or
equity. Due to the cooperative principles of ‘risk sharing’ and ‘mutual responsibility’, financially weaker cooperatives may have used debt extensively, knowing that the cooperative principles would provide them an ‘insurance policy’ (stronger cooperatives would bail them out) in the case of adverse business outcomes or enterprise failures.

In the case of the Danish pork industry, the merger between two or more slaughterhouses was financially realized by distributing the combined assets proportionally to the size of assets and liabilities that each enterprise was representing. Mergers and takeovers were typically financed by drawing on equity or by obtaining new borrowings. In addition, the expectation was that the achieved synergies of the merger, i.e. primarily cost savings, could help in the long run with co-funding the diminished equity in the newly formed enterprise. Most often, the cooperative slaughterhouses used financial leverage, i.e. debts, to finance the extra refunds as a political prerequisite to get the members to support the merger. Subsequent the costs of mergers in terms of reorganizations and divestitures were typically also financed by debts. The evidence from the Danish pork industry shows that a great number of the acquired slaughterhouses were undercapitalized through the 1970s and 1980s.

5.3. Merger integration and outcomes: Realization of the synergy potentials

Mergers and takeovers usually imply great organizational complexities when two or more firms’ activities are integrated. Difficulties may arise in realizing prospective synergies, or it may be difficult to transfer a potential ‘strategic fit’ between the partners into concrete profits, or both. Furthermore, the ‘cultural fit’ between two or more partners may be underestimated because of differences in management styles and organizational cultures that could complicate the expected synergistic potential. Consequently, performance risk is likely to be high, leading to failures or non-successful integrations.

Although it may be difficult in general to accurately determine whether a specific merger realizes its synergistic potential without integration costs being too high, the study of the Danish pork industry from 1960 to 2010 indicates that the majority of the 43 mergers and takeovers largely fulfilled the objectives that were set. Only a few of the realized mergers can be characterized as unsuccessful or
outright mistakes. It was primarily operational synergies (i.e. cost savings) that were realized, while resource-based explanations that emphasized the importance of resource sharing and transfer of competences were less pronounced. The attainment of financial synergies was in most cases non-existent. The obvious unsuccessful mergers were the EXPO-Fyn merger, the Tulip–EXPO-Fyn merger, and the merger between Tulip and Sydøstjyske. They typically failed due to lack of managerial competence, including inefficiencies in implementing the mergers. Conflicts of interest between the board and the management team as well as political conflicts within the board of directors also influenced the negative merger outcomes.

The explanations for the relatively successful integration of the slaughterhouses can be attributed to at least two institutional explanations. Firstly, the Danish cooperative slaughterhouses were very similar in terms of organizational capability, production technology, product range and market coverage. The substantial isomorphism (i.e. similarity) among the cooperatives was a result of the adoption and diffusion of certain business models, organizational practices, routines and structures (e.g. joint technology institutions, and joint sales and marketing organizations) established over decades as a standard within the cooperative ownership. Accordingly, it was less difficult for the partners on both sides (management, boards and business advisers) to assess the value of a slaughterhouse’s tangible assets, and its technology and marketing capabilities. To a great extent, these assets were generally well known and the technology widespread, partly as a result of the joint technology cooperation under the auspices of the Research Institute of Danish Slaughterhouses. Rarely was there a dispute over the valuation; disagreement during the process of negotiations was instead about the conditions of the merger, i.e. questions about financial compensation as well as management and organizational issues.

Secondly, inter-locking directorates have historically been established of which the managing directors of the enterprises knew each other well via directorships in other (jointly owned) cooperatives and the industry association. Furthermore, a significant degree of manager mobility reigned, as result of recruitment practices within the cooperative sector. Most managing directors had either been trained or had been employed as functional managers in other cooperative slaughterhouses before they were
appointed to their senior management positions. Consequently, the issue of ‘cultural misfit’ was strongly reduced and former “enemy profiles” were quickly buried when the amalgamation was first decided and executed. In general, employee resistance was not a critical issue at least not during the negotiation process, however, when rationalizations, reorganizations and closures were conducted, problems (i.e. strikes) occasionally occurred.82

Having said this, it would be misleading to conclude that the outcomes of the restructuring process of the Danish pork industry were solely positive. The delay in industry restructuring that occurred through the 1970s and the 1980s meant that several slaughterhouse companies invested in the modernization of often old and outdated slaughter facilities, whose locations were inappropriate in urban areas. It would have been cheaper and more favorable to build new modern slaughtering plants and facilities that would have saved the cooperative members, i.e. the pig farmers, extra costs. Instead, investments went into partial improvements and extensions of existing plants.83 In the 1980s and the 1990s, the battle between the major regional slaughterhouses and, not least, the battle for national supremacy between the two business groups, Vestjyske and Danish Crown, led to increased competition for pig supplies and a battle for customers, that undoubtedly brought a number of efficiency benefits. On the other side, the rivalry between the combatants hampered industry restructuring due to a lack of common decisions about the future of the meat-processing industry, where a substantial need for rationalization existed, resulting in significant extra costs for Danish pig farmers.

An overall assessment of the net benefits of the industry’s restructuring is difficult to make, as there are opposing factors in play. On the one hand, the fierce competition between the slaughterhouses created the basis for more cost-effective and hence more competitive companies. On the other hand, the fierce competition led to a squeeze on profits. Against this background, it was actually the retail sector and the consumers who achieved the economic benefits of the restructuring process. This was particularly the case when Danish slaughterhouses undercut each other’s prices on export markets, which meant a reduction in revenue and profits that ultimately fell back on the Danish cooperative pig farmers.84
6. Conclusions

This article has examined the role of mergers and takeovers in the restructuring of the Danish pork industry from 1960 to 2010. It has provided a study of the numerous mergers and takeovers that were initiated, negotiated and implemented. The driving force behind industry restructuring was first of all a need to downsize and rationalize the pig meat production due to overcapacity, lack of investment and increasing cost of labor; all factors stressing the importance of market structure on merger motives. The restructuring process became a struggle between the cooperative slaughterhouses and privately owned abattoirs on the one hand, and a competition between the cooperative slaughterhouses on the other. The cooperative form prevailed at the expense of private investor ownership first and foremost due to cooperative members’ loyalty to their firms both in terms of deliveries and to the continuation of enterprises, but also as a result of the business model they over the years had designed and refined. The cooperatives increased their competitiveness vis-à-vis the privately owned companies in spite of the inherent (economic) problems in the cooperative form. Nevertheless, over a period of five decades they managed to adapt to the changing market conditions and technologies.

This historical case study generally supports industrial organization explanations for the evolution of the Danish pork industry while other explanations supplement the understanding of the restructuring process. The study has shown that agency and property rights explanations contribute to the understanding of the choice of mergers and takeovers as the main consolidation strategy vis-à-vis other strategies. M&A activities were primarily motivated by capital constraints that forced the cooperatives to undertake mutual horizontal mergers. The desire for continuation of the economic benefits of cooperatives (i.e. control with pig deliveries and price setting) as well as the interest in retaining the asset-specific investments that historically had been created within the cooperative sector seem also to have influenced the decisions to merge.

The triggered event of the first merger wave was Denmark's entry into the European Economic Community (EEC) on 1 January, 1973. The inertia that had characterized the structural development in the 1960s (i.e. local patriotism and resistance to merge) was challenged; a kind of external shock.
Besides the need for restructuring and rationalization, the new market situation required capital-intensive investments due to a new set of veterinary requirements and agricultural legislation imposed by the EEC. A large number of smaller and unprofitable abattoirs ran into problems because they did not have the funds necessary to invest in new technologies, and the situation forced them to merge with larger and financially stronger slaughterhouses. The subsequent merger waves were initiated by rivalry especially between the larger regional slaughterhouses in attracting pig suppliers and offering them competitive yearly refunds. In order to compete at a lower cost structure, what appeared to be an almost chain reaction of competitive behavior occurred from 1980 onward: consolidation by one company resulted in similar consolidation by others. The third merger wave from 1990 to 2002 produced a duopoly structure with two very large and dominant business groups. The ‘Pac-Man Game’ that had characterized the restructuring of the Danish pork industry from the early 1970s reached its preliminary culmination with two mega-mergers respectively in 1998 and 2001. Consequently, only two business groups remained in 2010; Danish Crown and Tican.

The outcomes of the M&A activities in the Danish pork industry were generally positive in the sense that the expected cost synergies and the planned rationalizations (divestments and closures) were realized overall. The relatively successful M&A integrations can in part be explained by the fact that Danish cooperative slaughterhouses had shared missions and goals and were quite similar in terms of production technology, product range and market coverage. Decades of similar practices within the cooperative ownership eased the way for the merger processes, and in the way they did. Since institutions are carriers of history which maintain existing behavioral norms and cultural patterns throughout time, stickiness of institutions etc., path dependency became a driving force in the merger process.

The mergers and takeovers within the Danish pork industry can be placed within the wider narrative of contemporary Danish business history. As in the pork industry, other agribusiness industries have shown similar horizontal merger patterns; again with cooperatives as particularly proactive industry players. In the dairy sector, the restructuring came earlier and faster and became especially a struggle.
between town dairies and village dairies. In other Danish industries, the picture was characterized more by both horizontally and vertically-related M&As, cross-holdings and strategic alliances, of which multinational corporations, in particular, were created due to the substantial acquisitions they made especially in the 1980s and 1990s.

Special thanks are offered to Norma and Frode S. Jacobsen's Foundation and The Danish Meat Council for their financial support of this study.

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**Articles and Book Chapters**


Richards, T.J. & Manfredo, M.R., “Cooperative Mergers and Acquisitions: The Role of Capital


Schoenberg, R, “Mergers and Acquisitions: Motives, Value Creation and Implementation”.


Notes

1 A detailed description of sources and historical records can be found in Strandskov, *Konkurrence og Koncentration*, 807-810. Special thanks are offered to Norma and Frode S. Jacobsen's Foundation and The Danish Meat Council for their financial support of this study.

2 Some insights on the subject can be found in studies by Adelaja et al., "Predicting Mergers and Acquisitions", Hudson and Herndon, "Factors influencing probability and frequency of participation in mergers" and Richards and Manfredo, "Cooperative Mergers and Acquisitions". A somewhat older study of M & A activities among Swedish cooperatives appears from Utterström, *Organizational Vision, Ideologies and the Cooperative Myth*.

3 However, the consequences of the restructuring process for the Danish society as a whole are only to a limited extent addressed in this study, including the considerable negative effects of job losses for the many industrial workers. For further details, see Strandskov, *Konkurrence og Koncentration*, 801-803.

4 The literature on the subject is overwhelming and impossible to cover in this article, however, the following reviews may provide some insights: Trautwein, “Merger Motives and Merger Prescription”, Post, *Anatomy of a Merger*, Adelaja et al, "Predicting Mergers and Acquisitions", Schoenberg, "Mergers and Acquisitions: Motives,
Value Creation and Implementation" and Cartwright and Schoenberg, "Thirty Years with Mergers and Acquisitions Research".

Economists have tested the idea that industry shocks can have an impact on M&A activity, see Mitchell and Mulherin, "The Impact of Industry Shocks on Takeover and Restructuring Activity" and Powel and Yawson, "Industry Aspects of Takeovers and Divestures".

Shleifer & Vishny, "Stock Market Driven Acquisitions".

Post, Anatomy of a Merger and Sherer, "Corporate Takeovers: The Efficiency Arguments".

See Capron, "The Long-term Performance of Horizontal Acquisitions" and Chatterjee, "Type of Synergy and Economic Value".

Shahrr, "Industry Structure and Horizontal Takeovers" and Geiger and Schiereck, "The Influence of Industry Concentration on Merger Motives".

Andrade et al., "New Evidence and Perspectives on Mergers" and Fee & Thomas, "Sources of Gains in Horizontal Mergers".

Shleifer & Vishny, "Stock Market Driven Acquisitions".

The 1990s merger wave in the US has been explained by opportunistic managers timing deals to take advantage of high stock market values.

In the 1880s, a considerable breeding effort was made to produce a pig type that suited the British market. A crossing between the Yorkshire breed and the Danish Country breed proved to create a suitable bacon pig.

A review of the early historical evolution of the Danish pork industry appears in Pedersen, Danske Slagterier. De første Hundrede År, 7-21, Thomsen and Thomas, 127-174 and Pedersen, Strandskov and Sørensen, Philip W. Heyman, 66-80.

The literature provides different definitions of the cooperative organization. However, it is agreed that because of the heterogeneity of cooperatives, an unambiguous and comprehensive definition can hardly be achieved since they cover many sectors, social groups, goals and organizational forms, etc. Also different types of cooperatives exist: producer cooperatives, consumer cooperatives, worker cooperatives, purchasing cooperatives etc. A common definition can hardly accommodate all key aspects of their work. For further discussion, see Bager, Andelsorganisering, 61-63 and 87-89.

See Bager, Andelsorganisering, 143.

For an elaboration on cooperative principles and organizational forms, see for example Bager, Andelsorganisering, 61-90 and Nilsson, "Organisational Principles of Co-operative Firms".

The rationale for cooperative firms can be explained by transaction cost arguments, see Williamson, The Economic Institutions of Capitalism. Within primary agriculture activity, pig farmers are in general vulnerable in the market, as they have made large transaction-specific investments in herds, machinery, personal skills, etc. Moreover, there are considerable uncertainties in agricultural production, due to among other things, varying weather conditions. The quality of the produce is often difficult to assess by the farmer. In other words, there is information asymmetry. Agriculture is always geographically dispersed, which increases the risk that the farmer will come up against a local or regional monopsonist. All in all, if the pig farmers were selling to independent trading partners, they would face high transaction costs. By owning the trading partner, their transaction costs will come up against a local or regional monopsonist. All in all, if the pig farmers were selling to independent trading partners, they would face high transaction costs. By owning the trading partner, their transaction costs can be reduced, and due to the difference in the optimal scale of operations – farming in small scale and processing in large scale - this ownership becomes jointly in the form of a cooperative.

Until the mid-1960s, the binding period was typically five years. In the following decades it was lowered to two to three years.

In an investor-owned company, these rights lie with the shareholders.

In the late 1920s, the cooperative slaughterhouses established a common national settlement price, "Landsnoteringen" set by a national committee consisting of four managing directors and four chairmen of the boards. However, it was first in the early 1960s that common rules for price listing and settlements were introduced.

Throughout the whole period, the average yearly refunds to pig farmer members amounted to about 5-10% of the total raw material costs of the abattoir.

In most other continental European countries, price settlement for pigs was conducted on the basis of weekly auctions, which compared to the Danish price system, led to significant transaction costs.

The Danish cooperative slaughterhouses organized themselves early. In 1897, the Federation of Danish Cooperative Slaughterhouses ("De samvirkende danske Andels-Svine Slagterier") was established with the aim of promoting joint sales and marketing of Danish pork and bacon to the British market, including transportation, shipment, marketing and pricing. Later, the organization also took the initiative to establish a joint sales and marketing unit in Britain. For further details, see Tvede, O., De samvirkende danske andelsslagterier 1897-1972, København 1972, 44-60.
Initially, the organization was named The Danish Bacon Factories Export Association (“Salgsforeningen”); the name was changed to ESS-FOOD in 1975. Since the organization replaced the Ministry of Agriculture’s Bacon Committee, the membership was conditional on the slaughterhouse being an authorized export slaughterhouse approved by the ministry. Private companies as well as cooperatives could be members, see Tvede, Eksport-Svineslagteriernes Salgsforening, 8-16. In addition to carrying out export of bacon, ESS-FOOD also sold whole and half pig carcasses, spencers, and fats. The export sales of pork cuts (ham, forends, loins, bellies etc.), and processed pork products (i.e. sausages, canned meats etc.) were subject to the member companies’ own sales organizations.

Unlike ESS-FOOD, only cooperative slaughterhouses had ownership of the Danish Meat Research Institute. Over the years, the Institute covered research and development programmes in almost all areas of meat production, from pig transport and slaughtering technology, to processing and refrigeration methods, quality management and environmental protection. For details about the technological development of the Danish pork industry, see Vahlun, Slagteriernes Forskningsinstitut. Other joint enterprises within the cooperative pork sector included DAK and J.A.K.A. (both canning factories), Daka (processing and sales of by-products) and Dat-Schaub (intestinal sales).

By forward integration into the ownership of own slaughterhouses, pig farmers can secure their supply of pigs and increase their joint profits and thus avoid the threat of double marginalization that a monopsonist can inflict on them, see Tirole, The Theory of Industrial Organization.

See Nilsson, Svendsen and Svendsen, “Are Large and Complex Agricultural Cooperatives Losing their Social Capital?”


In order to improve competitiveness, the two remaining Danish companies, Danish Crown and TiCan, chose to carry out a number of foreign direct investments in, among other things, Germany and Poland primarily to save labor costs in the processing of Danish pig meat.

A number of consultant reports have over the years analyzed the international competitiveness of the Danish pork industry and in particular highlighted the above mentioned success factors. For an academic contribution, see Hobbs, Against All Odds. Explaining the Exporting Success of the Danish Pork Co-operatives.

In this article, an acquisition (takeover) refers to a combination of two or more firms in which the bidding firm offers to absorb the assets and liabilities of the target firm. The bidding firm usually retains its name while the target firm usually ceases to exist after the formal merger. In some case a new (eventually combined) name is decided. A merger is the same as a takeover, except that both bidding and target firms combine to create a new entity.

The exact number of merger attempts is subject to considerable uncertainty, partly because of tenuous sources of information (i.e. board records and local newspapers) and partly due to difficulties in determining exactly whether merger talks were undertaken seriously or rather based on “loose” and tactical reasons.

Typically, the buildings were torn down and the grounds were subsequently used for the construction of homes, commercial buildings or for other purposes – often in well-placed city locations.

For further details, see Strandskov, Konkurrence og Koncentration, 745-754.

The group of pig suppliers was in 1960 large (about 150,000) and scattered, most of which had a small pig herd often combined with cultivation of grain. Approx. 3/4 of all pigs delivered to slaughterhouses came from producers who delivered less than 200 pigs per year; these suppliers accounted for 97% of the total. Large pig farmers with an annual supply of more than 500 pigs per year accounted for only 0.3% of total suppliers, providing only about 5% of all pigs, see Strandskov, Konkurrence og Koncentration, 32. However, in the 1990s the group of pig suppliers became more concentrated, with approx. 500 pig farmers produced 20 % of the total pig deliveries, Strandskov, Konkurrence og Koncentration, 476.

It was the starting point for further expansion nationally as well as internationally. By the mid-1960s, EAC-Plumrose employed more than 5,000 employees.

The German group Koopmanns was a first mover by establishing 6-8 slaughterhouses, including the building of a new large abattoir in the town of Silkeborg (1890). The Koopmann group, however, faced rapid financial problems, and the Irish bacon manufacturer, Denny, took over the shares of the group a few years before the turn of the century. Factory Holding Company, a Danish-registered limited company, owned by the British bacon wholesaler, R. H. Thompson Ltd., London, established 6 slaughterhouses between 1900 and 1920. Also, the British consumer cooperative, C.W.S. was active in the Danish pork industry. In 1900, it bought Denmark’s third largest pig slaughterhouse, Herning-Skjern, in order to maintain bacon supplies to the association’s many outlets in the UK. In addition, a number of small pig slaughterhouses existed, including the pioneer Philip W. Heyman’s group of private companies, which, however, went bankrupt immediately after World War I. For most of the
period, the private slaughterhouses controlled less than 10% of the national pig killings and they were primarily located in West Jutland. For more details about foreign direct investments in the Danish food industry, see Strandskov and Pedersen, “Pioneering FDI into the Danish Bacon Industry”.

The smallest abattoirs slaughtered between 30,000 and 40,000 pigs a year, while the largest slaughtered between 300,000 to half a million annually. The middle group of slaughterhouses – the largest in number - killed between 100,000 and 200,000 pigs each year.

For further details, see Pedersen et al., Danske Slagterier, 141-143.

Strandskov, Konkurrence og Koncentration, 41-68

It came to four votings before the merger proposal fell.

See Pedersen et al., Danske Slagterier, 226-230.

For example, within the manufacturing of bacon, the curing process was strongly improved by the introduction of the bacon pickle injector with automated injection of curing through a system of syringe needles in different positions on bacon sides, see Vahlun, Slagteriernes Forskningsinstitut, 25-31. Investments into such instruments reduced the slaughterhouses’ labor costs substantially. However, the cost of investment was significant in particular for small slaughterhouses; in current prices an investment of about DKK 1 million.

The Koopmann group, owned by the British bacon wholesaler Denny, wanted to focus on retail sales at the British market, however, had over the years closed a number of plants. When EAC Plumrose negotiated an acquisition with Denny in 1967, the cooperative slaughterhouses issued a better bid and took over four slaughterhouses of Koopmann for approx. DKK 8 million. Factory Holding went bankrupt in 1968. The cooperatives - for a price of DKK 3.2 million - took over further four slaughterhouses. Plumrose's

Herning-Skjern Svineslagterierne A/S, Holstebro Svineslagteri A/S and Lemvig Slagteri A/S, the last being owned by the big Danish conglomerate EAC-Plumrose A/S (ØK).

Again, local patriotism constituted a merger barrier, including the desire to maintain company independence. For instance, the slaughterhouse in the town of Ebeltoft was immediately closed while a bacon factory in Grenaa was transformed into a cutting plant

The largest slaughterhouse of the merger, Vejle, had specialized early in the manufacture of meat-processing and the production of canned meat. Compared to other cooperative slaughterhouses that mostly produced bacon, Vejle had chosen a different product strategy that often created problems of cooperation for the joint marketing organization, ESS-FOOD.

In the early 1980s the lending rate rose to more than 20%, see Strandskov, Konkurrence og Koncentration, 271-277.

As a result, ESS-FOOD’s portfolio of assignments was changed in 1975. Previously, the portfolio included a number of assignments relative to trade policy; these tasks were removed from the company and placed at the Danish Meat Association. Consequently, the future role of ESS-FOOD was only to serve its members' commercial interests.

In addition, some members found that the organization did not market sliced bacon well enough; and the existing channels of distribution were too many and too long with resulting poor sale prices for the abattoir members.

For further details, see Pedersen et al., Danske Slagterier, 290-292.

Strandskov, Konkurrence og Koncentration, 163-166.

In reality, the existence of EXPO-FYN had been seriously threatened; the company needed a huge capital injection including a significant depreciation of its debt and the expected capital injection amounted to approximately DKK 90 Million, see, Strandskov, Konkurrence og Koncentration, 291-296

The cooperation agreement was intended partly as preparation for a merger between the two, and partly as a means to get Nordvest involved in the establishment of a proposed fresh food terminal on Zealand.

The numerous mergers and takeovers led not only to winners and losers among the companies; they also generated other victims. In some cases, the managing director was fired either due to poor financial performance of the company, mismanagement or other reasons; in other cases, the chairman of the board was overthrown or not re-elected by the company’s board of representatives, due to a failure to provide the owners – the pig farmers – with an appropriately high refund.

Steff-Houlberg was so heavily exposed that almost its entire equity was lost. The company, however, was saved from bankruptcy due to the willingness of banks to still provide credit and to cooperative members' patience. Over a number of years, they had to accept no or lower refunds than their colleagues in other parts of the country.

Moreover, Tulip faced considerable difficulties in the construction of a new fully automated meat processing plant; the budget was exceeded over and over again; and it took a very long time to get the plant ready for
operation. As a consequence, a large number of cooperative members threatened to terminate deliveries of approximately 300,000 pigs or about 10% of Tulip’s pig supplies.

59 Pension funds and other institutional investors supplied the company with new capital to the amount of DKK 1 billion.

60 In the battle, Tulip International achieved a prominent position with recurring financial difficulties during most of the period. Firstly, Tulip International was founded with a large interest-bearing negative opening balance (high indebtedness) due to ‘overpricing’ of canning factories (overvalued trademarks and re-valued production plants) that in the following years necessitated recapitalisation. In addition, Tulip International was continuously struggling with marketing problems, a falling dollar and squeezed sales prices in the US market for canned hams with further deterioration of its financial situation (i.e. three-digit losses in DKK). After intense negotiations, reorganisations, and capital write-downs, the investor group behind Tulip International succeeded in recapitalising the company by the end of 1995. For further details, see, Strandskov, *Konkurrence og Koncentration*, 485-91 and 539-555.

61 The struggle for national Supremacy between Vestjyske and Danish Crown in the 1990s had also been a struggle between two strong leaders and at the time two different leadership styles. While Danish Crown was characterized by a strong elected cooperative leadership, Vestjyske was almost unanimously governed by a strong managing director. When he had to leave in 1998, due to loss of currency speculation (a not particularly well-lit and documented story) and other circumstances, negotiations were opened for a merger.

62 With Danish Crown’s dominant shareholder position, the minority owners, Steff-Houlberg and Tican, felt they were overruled and participated without influence in the development of the two jointly owned companies. In several cases, the majority shareholder made forced decisions that minority owners thought were not in their interests, which generated considerable dissatisfaction and conflicts within the group of owners. After the reorganisation of ESS-FOOD in 1983/84, the trading company focused on an international strategy (i.e. with the sale of foreign meat and by engaging in foreign equity joint ventures in cutting plants as minority investor), however, with significant losses as a result. In addition, bad debts on the Russian market brought additional turmoil among the owners of ESS-FOOD.

63 The EU Commission considered ESS-FOOD as a cartel, prejudicial to free competition.

64 When two or more slaughterhouses merged, the pig suppliers were released from their obligations. As a common practice, they were free to decide which slaughterhouse they may wish to supply.

65 Although the negotiation talks between the two companies went smoothly and without major difficulties, the merger agreement, Nonetheless, led to considerable noise and frustration among the owners of Steff-Houlberg, including disappointment over abandoning of the company's independence, see *Konkurrence og Koncentration*, 711-722

66 Several broad reasons for the abandonment of mergers have been suggested. for example among others: legal barriers, improved financial conditions for the target firm, unexpected difficulties over financial terms, conflicts on corporate governance issues, and incompatibilities of management styles, see *Organizational Principles of Co-operative Firms*.

67 Fama and Jensen, “Organisational Forms and Investment Decisions”.

68 This may lead to “strategies of imitation”.

69 See for example Levenstein and Suslow, “What determines Cartel Success”.

70 For example, a difference in cost structure leads to complicated negotiations on benefits, because a uniform reduction in production will hit the participants’ profits differently. Moreover, it is assumed that the companies in a cartel are collectively facing an inelastic demand, where an expected increase in the profit due to coordinated pricing is not being undermined by customers’ disappearance. During (strongly) varying demand, the individual company will periodically work with low capacity utilization and a looming profit squeeze. Under such circumstances, there will be an incentive for coordinated action to stabilize the industry’s total earnings and thus the profit of the individual company participating in the coordination.

71 The foreign wholesalers such as Thompson, Factory Holding and C.W.S. divested their interests in the Danish pork industry in the late 1960s, while most Danish retail chains (e.g. FDB) divested their own food manufacturing through the 1970s and 1980s.

72 See Andrade and Stafford, “New Evidence and Perspectives on Mergers”.

73 Richards & Manfredo, “Cooperative Mergers and Acquisitions”.

74 See Van der Krogt et al., “The Impact of Cooperatives’ Risk Aversion”.

75 From a governance perspective, the cooperative organizational form represents a unique case. For further details, see Cobia, *Cooperatives in Agriculture* and Nilsson, *Organizational Principles of Co-operative Firms*, individually owned shares and the unallocated equity capital of the cooperative are made collectively by the cooperative society, Nilsson, *Organizational Principles of Co-operative Firms*
Several studies have focused on the organizational characteristics of cooperatives, often in comparison to those of private investor-owned firms. See for example Bekkum and Dijk, "Agricultural Cooperatives in the European Union", and Richards and Manfredo, "Cooperative Mergers and Acquisitions". A common conclusion is that the democratic control structure as well as the limited access to equity capital affects the corporate strategies of cooperatives.

Richards and Manfredo, "Cooperative Mergers and Acquisitions".

In the 1970s and 1980s, the solvency ratio for the majority of Danish slaughterhouses was between 15 and 20%. With the formation of the mega-mergers in the 1990s, this ratio fell to between 12 and 15%, but rose to over 20% after 2005. The smaller slaughterhouse Tican was a significant exception with a solvency ratio of over 40% for most of the period.

See Birkinshaw et al., "Managing the Post-Acquisition Integration Process".

DiMaggio & Powell, "The Iron Cage Revisited: Institutional Isomorphism".

For examples see Strandskov, Konkurrence og Koncentration, 404-407 and 745-750.

However, during periods of growing pig production, a limited production capacity forced managers to make quick decisions about investing in existing facilities.

In the final account of the restructuring process, the significant societal and human costs also have to be taken into consideration (i.e. loss of jobs, and loss of social capital in smaller communities and towns) with their considerable impact on industry (re)location, growth and value creation; issues that this article has not dealt with.

See Bjørn, Dansk Mejeribrug 1882-2000, 464-475.
### Appendix: Mergers and Takeovers in the Danish Pork Industry, 1960-2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Name</th>
<th>Type</th>
<th>Participants</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>Hjørring</td>
<td>Takeover</td>
<td>Hjørring and Frederikshavn</td>
<td>Frederikshavn was taken over due to production not being able to continue on rented land. Uncomplicated takeover</td>
</tr>
<tr>
<td>1966</td>
<td>Federation of Danish Slaughterhouses</td>
<td>Takeover</td>
<td>J. Steffensen A/S (privately owned)</td>
<td>A specialized sausage manufacturer acquired because of generational change</td>
</tr>
<tr>
<td>1968</td>
<td>Forenede Sjællandske Andelslagterier (FSA)</td>
<td>Merger</td>
<td>Frederikssund, Køge, Sorø, Nykøbing F., Roskilde, Ringsted, Kalundborg, Skælskør and Hillerød</td>
<td>The first significant strategic merger: 1.2 million pigs slaughtered per year and a total of approximately 1,000 employees. Adopted by the owners with about two-thirds majority. However, slow harvest of merger benefits</td>
</tr>
<tr>
<td></td>
<td>Hjørring</td>
<td>Merger</td>
<td>Hjørring and Vraa</td>
<td>Smaller slaughterhouse (Vraa) acquired due to financial problems</td>
</tr>
<tr>
<td></td>
<td>Holbæk</td>
<td>Takeover</td>
<td>Holbæk and Odsherred</td>
<td>Odsherred had financial problems after having said no to participate in the FSA merger</td>
</tr>
<tr>
<td></td>
<td>Federation of Danish Slaughterhouses</td>
<td>Takeover</td>
<td>J.D. Koopmans (owned by the Denny-group)</td>
<td>The four highly rundown abattoirs were taken over by the cooperative sector. The former British owner wanted to dispose of its interests in the Danish pork industry</td>
</tr>
<tr>
<td>1969</td>
<td>FSA</td>
<td>Takeover</td>
<td>FSA and Masnedsund</td>
<td>Masnedsund was taken over due to lack of investment capability.</td>
</tr>
<tr>
<td></td>
<td>FSA</td>
<td>Takeover</td>
<td>FSA and Haslev</td>
<td>Haslev acquired due to earnings problems and heavy debt. Merger with financial compensation.</td>
</tr>
<tr>
<td></td>
<td>Federation of Danish Slaughterhouses</td>
<td>Takeover</td>
<td>Factory Holding (owned by R.H. Thompson Ltd.)</td>
<td>A group of six British-owned abattoirs were taken over by the cooperative sector. Several factories were closed immediately after the takeover</td>
</tr>
<tr>
<td>1970</td>
<td>Ø.A.S.</td>
<td>Merger</td>
<td>Randers, Hadsten, Ebeltoft, Grenaa and Allingåbro</td>
<td>Difficult and lengthy merger process influenced by disagreement over terms and conditions. Difficult integration process.</td>
</tr>
<tr>
<td></td>
<td>FSA</td>
<td>Merger</td>
<td>FSA, Nakskov, Maribo and Nykøbing F.</td>
<td>FSA took over outdated plants with significant debts. A voluntary liquidation</td>
</tr>
<tr>
<td></td>
<td>Odense Eksportslagteri</td>
<td>Takeover</td>
<td>Odense and Bogense</td>
<td>Bogense failed to provide supplementary payments (yearly bonus) and to invest in a water treatment plant</td>
</tr>
<tr>
<td></td>
<td>Wenbo (Østvendsyssel)</td>
<td>Merger</td>
<td>Hjørring, Brønderslev and Søby</td>
<td>Merger negotiations over several years. Varying support for the merger from the owners.</td>
</tr>
<tr>
<td></td>
<td>SYD</td>
<td>Merger</td>
<td>Graasten, Sønderborg and Aabenraa</td>
<td>Graasten was the most consolidated slaughterhouse; the other two were quickly closed. Merger with financial compensation.</td>
</tr>
<tr>
<td>Year</td>
<td>Description</td>
<td>Type</td>
<td>Location</td>
<td>Outcome</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>------</td>
<td>----------</td>
<td>---------</td>
</tr>
<tr>
<td>1971</td>
<td>Merger between Kolding and Vojens</td>
<td>Merger</td>
<td>Kolding and Vojens</td>
<td>Strategic merger between economic well-run slaughterhouses</td>
</tr>
<tr>
<td>1972</td>
<td>Merger between Esbjerg, Ansager, and Rødding</td>
<td>Merger</td>
<td>Vejle, Horsens, Silkeborg, Skanderborg, Odder and Grindsted</td>
<td>A significant strategic merger: 1.4 million pigs slaughtered and DKK 1 billion in turnover. Overwhelming support for the merger.</td>
</tr>
<tr>
<td>1972</td>
<td>Merger between Holbæk and Slagelse</td>
<td>Merger</td>
<td>Viborg and Skive</td>
<td>Strategic merger after a previous close strategic alliance</td>
</tr>
<tr>
<td>1972</td>
<td>Takeover of Viborg and Skive</td>
<td>Takeover</td>
<td>Nørresundby and Nibe</td>
<td>Viborg could not compete on the yearly bonus payment</td>
</tr>
<tr>
<td>1972</td>
<td>Takeover of Nørresundby and Nibe</td>
<td>Takeover</td>
<td>Nørresundby and Løgstør</td>
<td>Nibe experienced decline in the number of pigs slaughtered and inability to keep up with giving its members a competitive yearly bonus</td>
</tr>
<tr>
<td>1973</td>
<td>Takeover of FSA and S. Houlberg</td>
<td>Takeover</td>
<td>FSA and S. Houlberg</td>
<td>Larger specialized sausage producer acquired as a result of significant economic problems (several years of deficits)</td>
</tr>
<tr>
<td>1975</td>
<td>Takeover of Nørresundby and Løgstør</td>
<td>Takeover</td>
<td>Nørresundby and Løgstør</td>
<td>Løgstør had substantial debts and experienced a decline in slaughtering and was unable to invest in new technology</td>
</tr>
<tr>
<td>1976</td>
<td>Merger between Struer and Hurup</td>
<td>Merger</td>
<td>Skive and Mors</td>
<td>Hurup had difficulties in providing a competitive (high) yearly bonus payment vis-à-vis Struer. The acquisition was caused by a decline in slaughtering in Mors and expansion plans in Skive.</td>
</tr>
<tr>
<td>1977</td>
<td>Merger between Bjerringbro and Aars</td>
<td>Merger</td>
<td>Bjerringbro and Aars</td>
<td>Due to lack of financial resources, Aars was unable to invest in new technology</td>
</tr>
<tr>
<td>1978</td>
<td>Takeover of Ø.A.S. and Hobro</td>
<td>Takeover</td>
<td>Ø.A.S. and Hobro</td>
<td>Hobro faced financial problems and had difficulties in providing a competitive (high) yearly bonus</td>
</tr>
<tr>
<td>1978</td>
<td>Takeover of Struer-Hurup and Lemvig A/S (EAC-Plumrose)</td>
<td>Takeover</td>
<td>Struer-Hurup and Lemvig A/S (EAC-Plumrose)</td>
<td>Plumrose wanted to divest due to declining pig supplies and earning difficulties in its abattoirs</td>
</tr>
<tr>
<td>1979</td>
<td>Merger between Thisted and Fjerritslev</td>
<td>Merger</td>
<td>Thisted and Fjerritslev</td>
<td>A strategic merger after a previous close strategic cooperation</td>
</tr>
<tr>
<td>1980</td>
<td>Merger between Odense, Faaborg, Nyborg, Svendborg, and Rudkøbing</td>
<td>Merger</td>
<td>Odense, Faaborg, Nyborg, Svendborg, and Rudkøbing</td>
<td>The merger was underway after a number of negotiation attempts over several years. Subsequent cooperation problems emerged in the management team and the combined entity was not able to reap merger benefits</td>
</tr>
<tr>
<td>1981</td>
<td>Merger between Bjerringbro-Ars and ØAS</td>
<td>Merger</td>
<td>Bjerringbro-Ars and ØAS</td>
<td>A significant merger: 1.7 million pigs slaughtered per year and almost DKK 2 billion in turnover.</td>
</tr>
<tr>
<td>1985</td>
<td>Merger between Sundby and Wenbo</td>
<td>Merger</td>
<td>Sundby and Wenbo</td>
<td>A strategic merger, well prepared after a joint acquisition of a small meat business</td>
</tr>
<tr>
<td>Year</td>
<td>Company 1</td>
<td>Type</td>
<td>Company 2</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1986</td>
<td>Royal Dane- Quality A/S</td>
<td>Merger</td>
<td>Royal Dane and Quality</td>
<td>Merger between two large private slaughterhouses. Quality had trouble keeping up with the yearly bonus payments.</td>
</tr>
<tr>
<td></td>
<td>Tulip</td>
<td>Merger</td>
<td>Tulip and Danish Crown</td>
<td>A significant merger: 3 million pigs slaughtered per year and DKK 7 billion in turnover. Management disagreement concerning merger integration.</td>
</tr>
<tr>
<td>1986</td>
<td>Steff-Houlberg</td>
<td>Merger</td>
<td>Nordvest and FSA</td>
<td>Merger after years of competition for supplies and bonus payments. Joint purchase of a meat processing company caused the merger.</td>
</tr>
<tr>
<td>1989</td>
<td>Vestjyske</td>
<td>Takeover</td>
<td>Struer-Hurup and Celebrity</td>
<td>Celebrity failed over the years to provide a competitive bonus payment.</td>
</tr>
<tr>
<td>1989</td>
<td>Tulip International</td>
<td>Merger</td>
<td>J.A.K.A., Normeat, Danepak (UK) and Tulip (meat processing division)</td>
<td>A large merger of a number of meat processing companies that came into existence due to financial problems in Tulip that was a result of bad investments in a canning factory and sales problems of pig meat to the US market.</td>
</tr>
<tr>
<td>1990</td>
<td>Vestjyske</td>
<td>Takeover</td>
<td>Vestjyske og Jutland</td>
<td>A significant merger: 8 million pigs slaughtered, 5,000 employees and DKK 7 billion in turnover. The merger was caused since Jutland was not able to pay a competitive yearly bonus to its owners.</td>
</tr>
<tr>
<td></td>
<td>Danish Crown</td>
<td>Merger</td>
<td>Sundby-Wenbo, østJYSKE, Tulip (slaughtering div)</td>
<td>A significant merger: 9 million pigs slaughtered, 7,500 employees and about DKK 10 billion in turnover.</td>
</tr>
<tr>
<td>1991</td>
<td>Vestjyske</td>
<td>Takeover</td>
<td>Vestjyske og Royal Dane-Quality A/S</td>
<td>The privately-owned slaughterhouse, RDQ, was taken over after failure of currency speculation and a crisis of leadership. Significant problems of merger integration.</td>
</tr>
<tr>
<td>1994</td>
<td>Danish Crown</td>
<td>Takeover</td>
<td>Danish Crown and SYD</td>
<td>SYD was taken over because of bad investments in Eastern Europe and marketing problems in Japan. Seamless merger process.</td>
</tr>
<tr>
<td>1998</td>
<td>Danish Crown</td>
<td>Merger</td>
<td>Danish Crown and Vestjyske</td>
<td>Mega-merger formed after ten years of intense competitive struggle between the two meat groups: 16 million pigs slaughtered and DKK 35 billion in turnover. Equal strategic merger between two of the largest meat companies in Europe. Full merger support among the owners. Successful integration.</td>
</tr>
<tr>
<td>2001</td>
<td>Danish Crown</td>
<td>Merger</td>
<td>Danish Crown and Steff-Houlberg</td>
<td>Mega-merger caused by Steff-Houlberg's poor financial results and its weakened long-term competitiveness (high unit slaughtering costs). Almost unanimously agreed among the owners of both companies.</td>
</tr>
</tbody>
</table>