UNIVERSITY OF STRATHCLYDE
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# The Management of Foreign Direct Investment Risk by three Norwegian Firms in the 1960s and 1970s

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This thesis is the result of the author's original research. It has been composed by the author and has not been previously submitted for examination which has led to the award of a degree.



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# Abstract

This thesis investigates the internationalisation and risk management strategies of three Norwegian manufacturing firms that first commenced Foreign Direct Investment (FDI) in the late 1960s and early 1970s. The three firms are: Dyno Industrier; Norcem; and Elkem-Spigerverket. Dyno invested in West Germany, England, Singapore, Denmark and Finland; Norcem invested in Ghana, Liberia, the Philippines, and Ras al-Khaimah; and Elkem-Spigerverket invested in the United Kingdom. The three firms were relatively early to invest abroad in comparison to the majority of Norwegian firms.

For all three firms, risk and risk management was an important factor in their investment decisions. This research examines why the three firms decided to invest abroad, the context of their investment decision, how they viewed the risk involved with the investments, and which strategies they implemented to manage the risks. A comparison between the three firms is drawn in order to identify similarities and differences in their risk-management strategies and investment decisions. The thesis also investigates the extent to which modern risk management was practised by the three firms in the 1960s and the 1970s.

The research was carried out using historical methods, primarily based on company archives, company magazines, government archives, and newspaper articles, which are used to highlight the firms' investments, the contexts to those, and their risk management strategies. Oral history interviews were conducted with four former senior managers and decision-makers in the three selected firms.

The investments made by the three firms are described and discussed in individual chapters, followed by a comparison and discussion of the three firms' risk management strategies. The research finds that several risk management strategies were used by the three firms when they invested abroad. State guarantees, shared ownership, and networking/relationships with local governments were particularly important as risk management strategies.

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# Contents

# List of Abbreviations

| | |
|---|---|
| BASF | Badische Anilin- und Soda-Fabrik |
| BSC | British Steel Corporation |
| BSL | Bidston Steel Ltd. |
| Cemenco | Liberia Cement Company |
| CPC | Christiania Portland Cementfabrik |
| DAC | Development Assistance Committee |
| Dalen | Dalen Portland Cementfabrik |
| DKK | Danish Krone |
| DM | Deutsche Mark |
| ECA | Export Credit Agencies |
| ECGD | Export Credits Guarantee Department |
| EDC | Endecom |
| EEC | European Economic Community |
| EFTA | European Free Trade Area |
| ES | Elkem-Spigerverket |
| FDI | Foreign Direct Investment |
| GATT | General Agreement on Tariff and Trade |
| Ghancem | Ghana Cement Works |
| GIEK | Guarantee Institute for Export Credits |
| ICI | Imperial Chemical Industries |
| IDC | Industrial Development Certificate |
| IEC | International Electrotechnical Commission |
| ISO | The International Organization for Standardization |
| MNC | Methanol Chemie Nederland |
| MNE | Multinational Enterprises |
| MSL | Manchester Steel Ltd. |
| Norad | Norwegian Agency for Development Cooperation |
| NOK | Norwegian Kroner |
| NOU | Norges Offentlige Utredninger / Norwegian Official Reports |
| NSI | Norsk Sprængstofindustri |
| OECD | The Organisation for Economic Co-operation and Development |
| OPEC | Organization of Petroleum Exporting Countries |
| RAK | Ras al-Khaimah |
| Spigerverket | Christiania Spigerverk |
| Spiwo | SPIWO Kunstharzproduktion G.m.b.H |
| Worlée | Chemi-Handelsgesellschaft E. H Worlée & Co. |

# List of Tables and Figures

# 1.0 Introduction

Foreign Direct Investment (FDI) is an investment abroad where the investing firm has at least 10 per cent ownership,[1] and a degree of influence over the foreign enterprise.[2] Risk management is a central component of any FDI, and a firm undertaking FDI can implement several different risk management strategies. The subject of the present research is three Norwegian manufacturing firms that first carried out FDIs in the 1960s and the 1970s. These three firms are: Dyno Industrier; Norcem; and Elkem-Spigerverket. The three firms invested all over the world in industries including steel, cement, plastic sprayers, and industrial adhesives, from the mid-1960s onwards. This research will examine the investments and investment decisions made by the three firms, with a particular focus on their views of risk and the risk-management strategies they employed.

Risk and risk management were important elements of the three firms' investments. Their investments abroad coincided with an increase in Foreign Direct Investments (FDI) by other Norwegian firms, and with an increase in interest in risk and risk management research. Since then, the interest in internationalisation and risk management has grown, both in academia and for firms that wish to invest abroad. This thesis will investigate the three Norwegian firms, their early internationalisation process, and their risk-management strategies in relation to their investment decisions made in the 1960s and 1970s. The research will further investigate why the firms decided to invest abroad, how they viewed the risks involved with FDIs, and how they chose to manage those risks. Finally, the thesis will discuss the extent to which the three firms practised modern risk management in their investments. This will grant insight into how manufacturing firms invest abroad, how risk influences investments, how risk management strategies are used, business-government relations and internationalisation strategies.

[1] Benito, G. R. & Gripsrud, G. 1992. The expansion of foreign direct investments: discrete rational location choices or a cultural learning process? *Journal of International Business Studies***,** 461-476.
[2] Norges Bank. 1996. *Utenlandske investeringer i Norge* [Online]. Available: http://www.norges-bank.no/Publisert/Pressemeldinger/1996/prm19961103171425html/ [Accessed 20/09/2016].

The research used historical methods, with the main data collected from archives and company magazines. Oral history interviews with former managers from the three firms were used to supplement this data and provide further elucidation on decision-making and risk management for the three firms. These interviews granted access to information that would otherwise potentially not have been available, and therefore provided insight into issues that contemporary approaches would not have accomplished.

## 1.1 Main theme, research questions and limitations

Risks, in relation to FDI, are often defined as, "the dangers firms face in terms of limitations, restrictions or even losses when engaging in international business".[3] In the last 30 to 40 years, research on risk and risk management has increased in scope and scale.[4] Risk management was still an important element of international investment prior to this increase in research on and interest in the topic, though there has thus far been only limited research conducted on how firms chose to manage risks related to international investments previous to this. There has also been a lack of comparative research on how firms manage risk when they invest abroad. In particular, research that combines historical methods with theories on risk management in relation to FDI is notably lacking. A central aim of this thesis is to fill this gap in research on risk management and internationalisation in the years prior to the increase in interest in risk management.

This research examines three Norwegian manufacturing firms that invested abroad for the first time in the 1960s and 1970s. The primary focus is on the three firms' investments and decisions around those, which risks they were most concerned with when they invested abroad, and how they chose to manage the risks they regarded as important. Within this, the research also investigates how the investments were carried out, why the firms chose to invest abroad, how they viewed the risks involved, and the

[3] Eduardsen, J. S. & Marinova, S. T. 2016. Decision-makers' risk Perception in the Internationalisation of Small and Medium-Sized Firms. *International Journal of Export Marketing*, 1(1), 4-26.
[4] Inhaber, H. & Norman, S. 1982. The increase in risk interest. *Risk Analysis*, 2, 119-120

decisions they made in relation to their investments and their risk management. This is explored using archive material (from company and government archives), company magazines, newspapers and oral history interviews to describe and discuss the decisions and risk management strategies selected and implemented by the three firms. Through this, the research aims to describe the firms' first investments abroad and the risk management strategies that were utilised at this time. The research, therefore, grants insight into risk management, internationalisation, strategy, and decision-making related to FDIs.

Furthermore, the research looks at how the three firms managed their risks in comparison to both current and modern research and international standards on risk management. The research aims to explain how the firms' risk management strategies compared, and to what extent they used modern risk management approaches. By exploring these issues, the research will contribute to increased knowledge and understanding of internationalisation and risk management, and of the contributions made by modern risk management research. Furthermore, it will also highlight the contributions that the historical method can make to business research. The inclusion of the three firms' context and background as Norwegian manufacturing firms will also grant insight into business-government relations, and the importance of this in an FDI.

The overall research questions addressed in this thesis are three-fold:

1. Why and how did the three firms choose to invest abroad?
2. How did risk affect the Foreign Direct Investments of the three firms, and how did they choose to manage the risks involved?
3. How does the choice of risk management strategies compare amongst the three firms, and to what extent was modern risk management practised in their FDIs during the 1960s and the 1970s?

To summarise, the objectives of this thesis are:

- to determine why the firms wanted to invest abroad and what they expected to gain from it;

- to investigate how the companies perceived risks, and contribute to an increased understanding of how risk and risk perception affected the Foreign Direct Investments of the three firms;
- to investigate and compare how the companies chose to manage risks and what risk management strategies they preferred;
- and, to investigate the extent to which modern risk management was practised in the three firms during the 1960s and 1970s.

### 1.1.1 Limitations

The main limitations of this research originate from access to data material, and the research scope. As is the case with almost all historical research, this research is limited regarding access to and availability of data material. The data material that still exists for the three firms varies, and there were some areas for which data was never recorded and/or archived. The way in which archives have been curated and the decisions made by different archivists and firms regarding what to include or exclude impacts on the available information in archives and the reliability of the sources.[5] This influences the research and it has an impact on how the material can be understood. Triangulation of sources helps to overcome those limitations.[6] There are also limitations to oral history interviews including the reliability of the information gathered and, given the seniority and age of those concerned, the scale of recruitment. Those limitations have been sought to overcome through triangulation against archival data and other information where this has been possible. Oral history offers invaluable insights into information that might be lost in written records and in illustrating how historical actors experienced and have made sense of that change and activity, and it is thus a useful source of information. The oral history interviews have been conducted with managers from all three firms, although their specific role in the firm has varied. The differences in the data material available and access to it will be discussed further in the chapter about methods and data.

[5] See for example: Coller, K. E., Helms Mills, J., & Mills, A. J. 2016. The British Airways Heritage Collection: an ethnographic 'history'. *Business History*, 58(4), 547-570.
[6] Decker, S. 2013. The silence of the archives: business history, post-colonialism and archival ethnography. *Management & Organizational History,* 8**,** 155-173.

The scope of this research is limited to the first foreign investments made by the three selected firms. These firms eventually grew into international firms operating all over the world, however this research is limited to a focus on their earlier investments; their later investments fall outside of the scope of the research. The reason for this exclusion is that by that time the firms had gained experience of FDIs, which may have changed their views of and responses to risk. Increasing the scope of investments included would also have meant either increasing the scale of the research or limiting the degree of detail that could be included. This would have restricted the comparisons of risk management strategies between the three firms. In regard to the investments of Elkem-Spigerverket, this research focuses only on those related to the mini steel mill in England, although Elkem did have other investments abroad during the same period. This decision was made because Christiania Spigerverk initiated the investment before the company merged with Elkem, and the investment was continued and managed by the same people following the merger. Thus, this investment was essentially an investment by the Christiania Spigerverk section of the firm even after the merger.

## 1.2 Selection of firms and time period

Norway can be considered a latecomer in regard to internationalisation and investments abroad. It was not until the late 1970s and the 1980s that the majority of the larger Norwegian firms did FDIs.[7] Regardless, some Norwegian firms were earlier to establish subsidiaries abroad, in particular from the middle of the 1960s. This research focuses on the late 1960s and the 1970s, as it was during this period that internationalisation and FDI began to increase amongst Norwegian manufacturing firms, albeit slowly.[8] The mid-1960s to the mid-1970s can thus be seen as a turning point in the process of internationalisation and FDI by Norwegian firms.[9] The three firms selected for this research were relatively early to invest abroad compared to the majority of Norwegian firms. The 1970s was also a period when research on risk and

[7] Amdam, R. P. 2009. The internationalisation process theory and the internationalisation of Norwegian firms, 1945 to 1980. *Business History,* 51**,** 445-461.
[8] 1974. 131 etableringer av norske produksjonsbedrifter i utlandet. *Norges industriforbund: 965*.
[9] Amdam, R. P. 2009.

risk management, in particular in relation to international investments, grew.[10] Thus, the three firms invested abroad in a period when there was some, though still limited, Norwegian experience on which to base investment decisions, and in a period when there only was limited research available on how to manage the risks involved with such investments.

The 1960s and 1970s are also an interesting period from the perspective of political and economic developments, both in Norway and globally. In Norway, the political views on FDI began to shift from scepticism to encouragement during this period and internationalisation through FDIs received increased attention from the government. The background to the prior scepticism was rooted in Norway's previous experience as a receiver of foreign investments[11], while the changes in the government's attitude were related to the increasing investment and labour costs in Norway and the decision to remain outside of the European Economic Community (EEC).[12] Regardless, the 1960s and 1970s is still an early stage in the Norwegian internationalisation process, and export was receiving the majority of the attention at this time.[13] It was not until the 1980s that interest in internationalisation and FDIs really increased. By then, all three of the firms selected for this research had grown into experienced international firms. The 1960s and the 1970s was also the period in which the Norwegian economy and politics was forever changed by the discovery of oil and gas on the Norwegian continental shelf, and with the development of the industry that followed.[14] Internationally, the period was also characterised by a shift from financial optimism to a financial stagnation and slower growth rates.[15] Hence, the 1960s and 1970s stand out as an interesting period for research on internationalisation and risk in relation to Norwegian manufacturing firms.

[10] Inhaber, H. & Norman, S. 1982.
[11] Midttun, A., Noreng, Ø. & Nygaard, A. 1987. Utenlandske Investeringer i Norsk Industri - Bør de hemmes eller fremmes. Tano, Oslo
[12] NOU 1981: 47. Behovet for internasjonalisering av norsk næringsliv, Oslo, Universitetsforlaget
[13] St.prp.nr 88 (1977-1978). Om tiltak med sikte på å fremme norsk eksport.
[14] 1975. Året 1975. Handelsdepartementet –Avdeling for utenrikshandel: Da-0136.
[15] Sevaldson, P. 1983. Perspektivberegninger for norsk økonomi til år 2000, Oslo, Universitetsforlaget.

The three firms selected for this research, Dyno Industrier, Norcem, and Elkem-Spigerverket, were Norwegian manufacturing firms. Those three firms are selected because all three of them had their first investments abroad in the late 1960s and the 1970s. All three firms were also operating out of Norway, meaning their socio-economic backgrounds are similar. They operated within different fields, but all three were manufacturing firms. There are several similarities between the three firms and the ways in which they made the investment and risk management decisions that they did, but there are also several differences, which makes it possible to explore and discuss different risk-evaluation and risk-management strategies. A second reason the three firms were selected was access to data such as archival material, company magazines, and oral history interviews.

### 1.2.1 Short introduction to the firms

The three firms selected for this study are Dyno Industrier, Norcem, and Elkem-Spigerverket. As previously mentioned, all three firms were Norwegian manufacturing firms that made their first FDIs in the 1960s and the 1970s. They were thus relatively early in doing so, compared to the majority of Norwegian firms. All three firms went through a merger during the late 1960s and early 1970s, and with the merger, they became some of the larger firms in Norway. The firms invested in subsidiaries all around the world, as everything from a minority owner to the sole owner of the subsidiary. The investments included both acquisitions and green field investments. A green-field investment involves starting a new company from scratch, while an acquisition is the purchase of sufficient stock in an already existing firm to control it.[16]

Dyno Industrier was established in 1972 after a merger between the only two civil explosive producers in Norway: Grubernes Sprængstoffabriker (Grubernes) and Norsk Sprængstofindustri (NSI). Their main production was explosives, but they also produced chemical products such as plastic sprayers and industrial adhesives. Both Grubernes and NSI made independent FDIs in the years before they merged. The earliest FDI was in 1996 by NSI in a joint venture in West Germany with a local

[16] Kogut, B. & Singh, H. 1988. The effect of national culture on the choice of entry mode. *Journal of international business studies.* 411-432.

company. The joint venture produced amino resins and NSI contributed the production know-how. NSI's next investment was in Singapore in 1970 where they started an industrial adhesives factory in a joint venture with the local development bank. Grubernes, the other merging partner, made its first FDI in 1970 when it acquired a producer of plastic sprayers in the United Kingdom. After the merger of Grubernes and NSI to become Dyno, the company invested in industrial adhesives factories in both Denmark and Finland in 1972, both of which were joint ventures with local plywood factories as participants.

The second firm selected for this research is Norcem. This firm was a producer of cement and related building materials, such as lightweight concrete and asbestos cement. They were also involved in plastic boat production. Norcem was established after a merger between the three cement producers in Norway in 1968. The cement producers' first FDI was through a mutual sales company in 1967, the year before the merger, when it became the minority owner of two cement mills in Ghana. The Ghanaian state owned the majority share, and the main income for Norcem came from the export of cement clinker produced in Norway. It took nine years from Norcem's first investment abroad until it made its next. Norcem made two FDIs in 1976. One of those was a joint venture in plastic boat production in the Philippines; this investment only lasted for a few years and was largely unsuccessful. The second investment, made in 1976, was in a block factory in Ras al-Khaimah, in the United Arab Emirates. This was a joint venture with Sheikh Saqr bin Mohammed al-Qasimi, the ruler of Ras al-Khaimah. In 1977, Norcem also invested in cement mills in Liberia. This investment had many similarities to the earlier investment in Ghana, but this time with Norcem as the majority owner and the local government a minority owner.

The last of the three firms, Elkem-Spigerverket, was created following a merger between Christiania Spigerverk and Elkem in 1972. Both companies were involved with the production of steel and metal products. Elkem-Spigerverket invested in a scrap-based mini steel mill in England in 1975. Christiania Spigerverk had been planning the investment since 1969 and Elkem-Spigerverket continued with the investment after the merger; however, it was primarily the former Christiania

Spigerverk section of the firm that oversaw the continued investment. After the initial mini steel mill was opened, the investment in England was expanded with a roller mill, a scrap metal buyer, and a second mini steel mill. The steel crisis in 1974 had a severe effect on the investment and Elkem-Spigerverket decided to withdraw from the entire investment portfolio in 1985.

## 1.3 Structure of the thesis

This thesis has three main sections. The first section (Chapters 2 to 4) will provide the background to the research and include a chapter on the risk literature, a chapter on the the research method, and a chapter on context. The second main section (Chapters 5 to 7) will describe the three firms and their investments in respective chapters, which are ordered according to the date of the companies' first FDIs: Dyno (1966/1967), then Norcem (1967), and finally Elkem-Spigerverket (1975). Each of these chapters is organised in a similar way. The last section (Chapters 8 and 9) in the thesis is comprised of the discussion chapter and summary chapter. A more detailed breakdown of what is provided in each chapter will be given below.

*Chapter 2: Risk and Risk Management*. This chapter presents the development, definitions, and theories of risk. The chapter focuses on the risk management theory and literature that is relevant for this thesis. The aim of this chapter is to describe what research on risk management and FDI has achieved thus far. The main theme of the chapter is the theoretical background to risk and risk management, both from a historical perspective and in relation to FDI. This chapter forms the basis for the discussion in later chapters of the firms' risk management. The second key theme of this chapter is the highlighting and discussion of relevant literature on internationalisation in business history and the internationalisation of Norwegian firms, in order to identify some of the research gaps that this thesis aims to address.

*Chapter 3: Method and Primary Sources*. This chapter describes and discusses the methods used in this research, namely historical methods of archival research and oral history interviewing. The chapter looks at how the historical methods are used and

what their contributions can be. The rationale for selecting these methods, their limitations, and the contributions they can make to business research, are also discussed in this chapter. The chapter then goes on to describe and discuss the oral history method, which is used to complement and triangulate the information found in the archives. The last section of the chapter reviews and comments on the primary sources that are used in this thesis, and the weaknesses in the source material.

*Chapter 4: Norwegian Context*. This chapter explains the context of and the background to the three firms and their investments. As all three firms were Norway-based, the focus of this chapter is on the Norwegian context. An important topic discussed in this chapter is the policies, regulations, and private and official organisations related to export and investments abroad at the time. The chapter also investigates how the political view of FDI changed in Norway, from initial scepticism arising from Norway's past experience as a receiver of FDIs to increased encouragement. The chapter starts with a brief section on Norwegian history and development up to the 1960s. Then, the 1960s and 1970s, as the two decades this thesis is concerned with, are described in more detail, with a focus on both international and Norwegian developments. A sub-section of this chapter is specifically focused on the views and development of export and FDI by the Norwegian government and Norwegian firms. This section also discusses the Guarantee Institute for Export Credits (GIEK) in Norway; this is included because it was an important part of the risk management strategies utilised in several of the investments.

*Chapter 5: Dyno Industrier*. This chapter is the first of the chapters discussing the three firms selected for this research. The first section of the chapter presents the background to the merger and the two firms that became Dyno Industrier. The chapter thereafter presents the first FDIs each of the two companies made prior to the merger, and the first investments after Dyno was created. All the investments are presented chronologically; the first investment was in West Germany in 1966/1967, followed by Singapore in 1970, England in 1971, and Denmark and Finland in 1972. The last section of the chapter is a discussion of the risks and the risk management involved in Dyno's investments.

*Chapter 6: Norcem.* This chapter first presents the background to Norcem, before describing its export of both products and know-how. The company's investment in Ras al-Khaimah was closely linked to its export, and this investment is therefore discussed in the section on export. Norcem's first FDI in Ghana in 1967 is then presented. Norcem's investment in Liberia in 1977 shares several similarities with the investment in Ghana, and so is discussed next. The final investment discussed is Norcem's investment in a plastic boat factory in the Philippines in 1976. The final section of this chapter is a discussion of Norcem's risk management in relation to its FDIs.

*Chapter 7: Elkem-Spigerverket*. This chapter discusses the last of the three firms selected for this research. The chapter starts by providing the backgrounds for Elkem and Christiania Spigerverk and their merger to become Elkem-Spigerverket in 1972. This is followed by a discussion of the steel industry and the steel crisis in 1974. The chapter then outlines the planning of the investment in a mini steel mill in the United Kingdom, the first investment in Manchester, and the next three investments in England. The chapter also describes the company's withdrawal from the investments in 1985. The final section of the chapter discusses the risk management this investment involved.

*Chapter 8: Risk Management: Comparison and Discussion.* The main theme of this chapter is the similarities and differences between the three firms' investments, their views on risk, and their risk management. This is discussed in reference to the theories on risk management and internationalisation presented in Chapter 2. The chapter also raises questions about what, if anything, the firms could have done differently if they had been in possession of current knowledge regarding risk. This chapter examines the firms' investments and risk management strategies in light of the background to and aims that drove the investment decisions, and the ways in which the firms chose to manage their risks.

*Chapter 9: Summary, Findings, and Further Research*. The final chapter of the thesis summarises the findings from the previous chapters and highlights potential areas for further research that emerge from the present research. Section 9.1 presents a summary of the findings and compares these to the research aims set out in the Introduction. Section 9.2 outlines areas for further research.

# 2.0 Risk and Risk Management

Risk is today a much-referenced concept, both in academia and in everyday life. The use of the word has a long history, but academic interest in risk management grew in the late 1960s and early 1970s, and research on risk and risk management has increased in scope and scale ever since.[17] The concept of risk is used in a variety of situations,[18] and the different uses of risk have contributed to several definitions of what risk is, and what the concept entails. However, the way in which risk is viewed and managed is also dependent on decision-makers' perceptions of risk, and their risk appetite. This chapter will discuss how risk has been defined, and the importance of risk perception. It will then examine risk-management strategies in relation to Foreign Direct Investments. In particular, the chapter will examine research that was carried out prior to 1975, when all three firms invested abroad, and research that has been carried out since, with a focus on international standards. In so doing, the chapter aims to highlight what research and knowledge on risk management and FDI might have been available for the managers of the three firms at the time they made their first FDIs, and what research has concluded since. This will lay the groundwork for the later discussion on the firms' understanding of risk and use of modern risk-management strategies.

The focus in the chapter is on risks related to internationalisation and therefore on the types of risk that are relevant to a firm that invests abroad via FDI. The chapter will provide the theoretical background and understanding of what risk is in relation to internationalisation. The section on risk management is divided into discussions of the period prior to 1975, and the period after, as by 1975 all three firms examined in this study had completed their first FDI. This theoretical background will later be used to discuss the investments, the risk management decisions, and the risk-management strategies used by the three firms. The chapter will also review related research that has been conducted by other academics, both within historical research on risk management and internationalisation, and in relation to Norwegian FDIs. This

[17] Inhaber, H. & Norman, S. 1982. The increase in risk interest. *Risk Analysis*, 2**,** 119-120.
[18] Lupton D. 1999. *Risk: Key ideas*. Routledge: 9.

positions the research within a wider academic context and highlights the relevant research gaps that this research aims to fill.

## 2.1 Risk and risk management: definitions, concepts, and perceptions

Risk is a much used and debated concept, and thus several different definitions of the term and explanations of what the concept entails have emerged. Several attempts have been made towards creating an accepted definition for what 'risk' constitutes, yet thus far no universally agreed upon definition has been put forth.[19] Some of the most relevant definitions will be presented and discussed in this section; the differences in these definitions, and the importance of risk perceptions and risk appetites will be discussed. This understanding will be used in later chapters discussing the risk perspectives and risk appetites within the three firms and the potential implications these had for the firms' investment decisions and selection of risk-management strategies.

The word 'risk' has a long history. It is debated when the word first came into use, but several researchers link the word to a Latin background, where it meant "that which cuts", or rock, cage, reef.[20] This is in line with the most widely accepted view, which is that the concept and usage of the word 'risk' emerged with maritime ventures. Arguably, this concept of risk is different to the modern understanding, as it was related to objective dangers such as floods, storms, and epidemics.[21] However, Mohun argues that the pre-modern use of risk was more complex than simply a fate-based concept.[22] Mohun used newspaper articles, committee reports, diaries, and secondary sources as the basis for an analysis of early risk. However, the context in Mohun's book is limited to a focus on the USA, and world events are barely mentioned. Mohun explained how people in the USA considered and addressed risk, beginning with the management of fire-related risks in the early 1800s. Mohun also argued that human

[19] Aven, T. 2012a. Foundational issues in risk assessment and risk management. *Risk Analysis*, 32, 1647-1656.
[20] Aven, T. 2012b. The risk concept—historical and recent development trends. *Reliability Engineering & System Safety*, 99, 33-44.
[21] Lupton, D. 1999: 5.
[22] Mohun, A. 2012. Risk: negotiating safety in American Society, JHU Press.

agency was recognised as important, and that human responsibility was routinely assigned with the task of limiting negative consequences also in pre-modern times.[23] In modern times, the focus has shifted to an almost exclusive emphasis on human behaviour and responsibilities in regard to risk, rather than on fatalism. This change occurred with the emergence of the modern society.[24]

Mathematical probability was developed in line with the evolution of modern society and made quantitative risk analysis possible. A 1792 analysis by LaPlace of the probability of death with and without smallpox vaccination can be seen as an early prototype of modern quantitative risk assessment.[25] Risk in the modern society grew into something that could be calculated[26] and modern risk analysis has roots in both the mathematical theories of probability and in the scientific methods for identifying causal links.[27] In the mathematical and economics-based perspectives on risk, risk is viewed as something that is calculable. One of the most commonly used definitions of risk from these perspectives is as the probability of an adverse event multiplied by the consequences of that event.[28]

The influential American economist and one of the founders of the Chicago school of economics, Frank Knight, published the book *Risk, Uncertainty, and Profit* in 1921. Knight's definition of risk in this book relayed on mathematical probability and was influenced by his own background in economics. Knight discussed the distinction between risk and uncertainty, where risk was defined as something that is calculable and quantifiable. Knight defined risk as a situation in which the outcomes are unknown, but the probabilities are known, while uncertainty was defined as a situation in which even the probabilities are unknown. Knight argued that uncertainties create opportunities for profit.[29] Based on Knight's definitions, uncertainty would be an

[23] Mohun, A. 2012: 7-8.
[24] Lupton D. 1999: 4.
[25] Covello, V. T. & Mumpower, J. 1985. Risk analysis and risk management: an historical perspective. *Risk analysis*, 5**,** 103-120.
[26] Lupton D. 1999: 8.
[27] Covello, V. T. & Mumpower, J. 1985.
[28] Rosa, E. A. 1998. Metatheoretical foundations for post-normal risk. *Journal of risk research*, 1, 15-44.
[29] Knight, F. H. 2012. *Risk, uncertainty and profit*, Courier Corporation.

important factor to consider for a firm that planned to invest abroad. However, the distinction between risk and uncertainty is often more diffuse than Knight promoted. Several researchers have pointed out that the proposed distinction between risk and uncertainty is not compatible with most uses of risk in modern society, nor with how risk is used in daily language.[30]

Today, there is no general agreement on how risk should be defined, what the concept entails, or how risk should be understood.[31] Therefore, several different definitions of risk are in use, depending on the situation and the discipline.[32] The majority of definitions of risk include references to unanticipated variation, an undesirable state, or a negative variation. Decision makers typically associate risk with negative outcomes,[33] and research has found that most managers do not treat positive outcomes as an important aspect of risk.[34] Lupton, for example, defined risk as implying danger, threat, or harm with no positive outcome.[35] Positive or desirable risks have often been seen as typically thrill-seeking activities, such as sports and gambling,[36] and positive risk has therefore often been excluded from definitions of risk.

Nevertheless, several of the more recently created definitions do not view risk as something that is inherently negative. For example, the International Organization for Standardization (ISO) developed a definition for their Risk Management Standard, published in 2009, that includes both positive and negative risks. ISO defined risk as the "effect of uncertainty on objectives".[37] However, in its attempt to gain agreement from several different disciplines on a single definition, ISO left the definition itself

[30] Aven, T. 2012b. And Borch, K. 1967. The theory of risk. *Journal of the Royal Statistical Society*. Series B (Methodological), 432-467.
[31] Aven, T. 2012b.
[32] Renn, O. 1998. Three decades of risk research: accomplishments and new challenges. *Journal of risk research,* 1**,** 49-71 and Aven, T. 2012b.
[33] Miller, K. D. 1992. A framework for integrated risk management in international business. *Journal of international business studies***,** 311-331 and Renn, O. 1998.
[34] March, J. G., & Shapira, Z. 1987. Managerial perspectives on risk and risk taking. *Management Science*, 33(11), 1404-1418.
[35] Lupton D. 1999: 8.
[36] Renn, O. 1998.
[37] Purdy, G. 2010. ISO 31000: 2009—setting a new standard for risk management. *Risk analysis*, 30, 881-886.

rather vague. This has been the primary criticism of ISO's definition of risk.[38] The primary problem with a vague definition like ISO's is that anyone can, and likely will, create individual interpretations of the definition. The implications of this are that the standard does not create a fundamental basis for how risk should be defined, understood, or discussed. Thus, a vague definition can increase disagreement, rather than establishing the fundamentals for a generally agreed upon definition, as their intention was.

Academics have also argued for the need to define risk in a way that includes both negative and positive outcomes. Rosa, for example, defined risk as: "A situation or event in which something of human value (including humans themselves) has been put at stake and where the outcome is uncertain". Rosa's definition has inspired several other definitions of risk by academics,[39] for example Renn, who defined risk as "The possibility that human actions or events lead to consequences that affect aspects of what humans value".[40]

This brief review shows that there are several approaches to defining what 'risk' entails. One of the reasons that establishing a widely accepted definition of risk has proven complicated is that risk perceptions and risk appetites affect how managers and decision-makers view and react to risk.[41] Classical decision theory analysis assumes that decision-makers address risk by first calculating and then selecting amongst the available risk-return combinations. However, risk is often not treated this way by decision-makers, and March and Shapira found that most managers show little inclination to reduce risk to a single quantifiable construct.[42] Rosa also argued that a scientific concept of risk is not sufficient in the areas of risk evaluation and risk management.[43] Decision-makers' risk perception and their concept of risk and risk management have an impact on their firm's risk orientation, on the decisions taken,

[38] Leitch, M. 2010. ISO 31000: 2009—The new international standard on risk management. *Risk Analysis*, 30**,** 887-892.
[39] Rosa, E. A. 1998.
[40] Renn, O. 1998.
[41] March, J. G., & Shapira, Z. 1987.
[42] Ibid.
[43] Rosa, E. A. 1998.

the ways in which decisions are reached, and on the management of risks.[44] Risk perception can be defined as the subjective assessment of inherent risk in a situation.[45] Risk perception and risk appetite can partly be a product of an individual's personality and experience, but variable factors, such as mood and how the problem is framed, will also have an impact on risk perception. Managers' risk-taking propensity also varies across different contexts and individuals.[46] The oral history interviews have been important for capturing the risk perception in the three firms.

Similarly, the perceptions of decision-makers can also affect the decisions taken and lead to poor decisions. The characteristics of individual managers and decision-makers, such as personal experience, risk appetite and knowledge impacts their decision-making. The impact on a decision-maker is greater in respect to losses than it is to gains. As such, decision-makers and managers may be more risk-averse when the issue is framed as a potential loss than when it is framed as a potential gain.[47] Paul Nutt[48] identified several decision mistakes that can lead to failure. The two main types of mistake mentioned by Nutt are failure-prone practices and premature commitments. Failure-prone practices occur when decision-makers spend little time considering their decision, while premature commitments occur when decision-makers jump at the first idea that comes along and then spend years trying to make it work. Nutt also argued that mistakes are made when decision-makers spend time and money on costly evaluation and little else, and that the risk evaluation can be rendered useless by either over-management or under-management of risk.[49] Individuals tend to ignore possible events that are either unlikely or very remote, regardless of their consequences. However, risk-related decisions need to be evaluated in regard to both the desirability of possible outcomes and the likelihood of these coming to pass.[50]

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[44] Cohrssen, J. J. & Covello, V. T. 1999. *Risk analysis: a guide to principles and methods for analyzing health and environmental risks*, DIANE Publishing and March, J. G., & Shapira, Z. 1987.
[45] Eduardsen, J. S. & Marinova, S. T. 2016. Decision-makers' risk Perception in the Internationalisation of Small and Medium-Sized Firms. *International Journal of Export Marketing*, 1(1), 4-26.
[46] March, J. G., & Shapira, Z. 1987.
[47] Aharoni, Y., Tihanyi, L., & Connelly, B. L. 2011. Managerial decision-making in international business: A forty-five-year retrospective. *Journal of World Business*, 46(2), 135-142.
[48] Nutt, P. 2002. Why decisions fail: Avoiding the blunders and traps that lead to debacles, Berrett-Koehler Publishers.
[49] Ibid.
[50] Tversky, A. & Fox, C. R. 1995. Weighing risk and uncertainty. *Psychological review*, 102, 269.

Directly related to FDI, risk perception can also have an impact on the timing of internationalisation, willingness to internationalise, and entry mode. Eduardsen and Marinova found that "decision-makers with an international orientation are more likely to proactively identify, create, and capture international opportunities".[51] Thus, how the managers and decision-makers in the three firms viewed risk and how willing to accept risk they were could have influenced their investments and the ways in which firms chose to manage the risks they saw as relevant. How managers perceive risk and their risk appetite also affects how they evaluate the value of the potential consequences associated with risks.

## 2.2 Risk management research up to 1975

The term 'Risk management' appears to have been in use since the early 1950s.[52] The first books on risk management were published in the mid-1960s.[53] Scientific interest in risk management grew from the middle of the 1960s, but it was not until the mid-1970s that this increase became significant.[54] The earlier academic interest in risk management was also limited to the USA, and it was not until the late 1960s and early 1970s that the first influential papers on risk management were published in the United Kingdom.[55] Regardless, risk and the management of risk have a long history. Risk management as a part of decision-making can be traced back to the late 1940s,[56] and insurance as a risk management strategy has an even longer history. For example, the British firm Turner & Newall sought to manage the risks related to health issues and asbestos production in the 1930s by implementing various health measures, but also

[51] Eduardsen, J. S. & Marinova, S. T. 2016.
[52] Crockford, G. N. 1982. The bibliography and history of risk management: Some preliminary observations. *Geneva Papers on Risk and Insurance*, 169-179.
[53] Dionne, G. 2013. Risk management: History, definition, and critique. *Risk Management and Insurance Review*, 16(2), 147-166.
[54] Inhaber, H. & Norman, S. 1982.
[55] Crockford, G. N. 1982.
[56] Dickinson, G. 2001. Enterprise risk management: Its origins and conceptual foundation. *The Geneva Papers on Risk and Insurance. Issues and Practice*, *26*(3), 360-366.

through suppressing medical research. Turner & Newall considered, but ultimately decided against, insurance.[57]

Management of the risks related to FDIs was also important even before scientific interest in risk grew, as firms that were involved in risk-filled areas were concerned about how they could manage risks.[58] All the three firms examined in this research had accomplished FDIs by 1975. Their knowledge of risk management was therefore based on research conducted before the scientific interest increased. This section will look at some of the most important publications and research on risk management up to 1975, constituting the risk research that was available at the time the three firms selected for this study made their first investment abroad, and therefore that they could have utilised in their decision-making. Risk research published after 1975 will be discussed in the next section (2.3).

One of the earlier writings on risk and risk management that is still discussed today is Knight's well-known book *Risk, Uncertainty and Profit,* published in 1921. Knight argued that uncertainty in the form of probability had been neglected in economic theory, and his book aimed to remedy this. The book took an economic perspective on risk and uncertainty, and is best known for describing what later became known as 'Knightian uncertainty', described earlier in this chapter.[59] Knightian uncertainty as a concept has been criticised for not being relevant to how risk is discussed today, but several economists still use the concept.[60] Besides defining uncertainty and risk as two separate constructs, Knight's book also discusses ways to deal with risk and uncertainty; insurance as consolidation is presented as one method, and specialisation as a risk-mitigation instrument that firms can use to minimise risks is also mentioned. However, the risk-management strategies that Knight proposes in the book are limited to specialisation and insurance.[61] For a firm looking to invest abroad, other risk

[57] Tweedale, G. 2001. Magic mineral to killer dust: Turner & Newall and the asbestos hazard. Oxford University Press: 10-12.
[58] Casson, M., & Da Silva Lopes, T. 2013. Foreign direct investment in high-risk environments: an historical perspective. *Business History*, *55*(3), 375-404.
[59] Knight, F. H. 2012.
[60] Aven, T. 2012b.
[61] Knight, F. H. 2012.

mitigation instruments would likely also be involved as a part of its risk management activities.

Although Knightian uncertainty is still in use, Knight's research has not had a significant impact on risk research today. Rather, it has been argued that the first systematic scientific attempt to study risk was Chauncey Starr, who published an article entitled 'Social benefit versus technological risk' in 1968.[62] The article looked at how social benefits could be quantitatively measured relative to the costs of accidental deaths. The article took an economic approach to risk, similar to Knight. The aim of Starr's paper was to "deliberately guide and regulate technological developments so as to achieve maximum social benefit at minimum social cost".[63] Starr sought to answer the question, "How safe is safe enough?" and in so doing formulate a methodology for determining social acceptability of risk. Starr studied risk acceptance in voluntary and involuntary societal activities and found that individuals use their own value system to evaluate their experience of voluntary societal activities. According to Starr's research, the public is willing to accept voluntary risk at a rate roughly one thousand times greater than for involuntary risk.[64] In economic theory of risk, which Starr advocated, risk is defined as something that can be expressed in terms of utility. This has since been questioned, and research has shown that managers do not always see the possibility of translating risk into numbers.[65] Most decisions are also taken collectively, which further complicates the process of expressing risk in terms of utility.[66] The economic perspective on risk, therefore, covers only limited types of risk. Starr's paper was limited to technological risk; the discussions on risk and voluntary and involuntary risk acceptance, therefore, have limited applicability for a firm looking to invest abroad. However, Starr's discussion on the acceptance of risk has similarities to the discussion on risk appetite and risk perception. A firm's risk perception can, as seen earlier, impact how the firm views and manages the risks related to FDIs.

[62] Renn, O. 1998.
[63] Starr, C. 1969. Social benefit versus technological risk. *Readings in Risk***,** 183-194.
[64] Ibid.
[65] Mitchell, V. W. 1995. Organizational risk perception and reduction: a literature review. *British Journal of Management*, 6**,** 115-133.
[66] Renn, O. 1998.

The concept of perceived risk was introduced in the earlier stages of risk research. A similar concept is also discussed in Knight's research from 1921; Knight argued that risk is associated with the judgement and executive power of the person taking the risk, rather than with objective external probabilities. For example, Knight argued that businessmen tend not to be critical and hesitant individuals, and have great faith in situations and themselves. This, Knight argued, has an effect on their evaluation of risk. Likewise, the pressure to outbid rivals and competitive situations has an impact on risk evaluation and management.[67] Knight also differentiated between objective and subjective probabilities, stating that objective probabilities are measurable and verifiable, while subjective probabilities cannot be measured scientifically and include variable individual preferences.[68]

Another significant scholar, Raymond Bauer, introduced the concept of perceived risk in marketing literature in 1960.[69] Research on perceived risk found that subjective perception of risk influenced the risks that people were willing to take.[70] Until the 1970s, research on perceived risk was limited to the field of marketing. In 1974, Simpson and Kuwaja studied the connection between risk perceptions and export; they examined how perceptions of risk and cost/benefit trade-offs affected export decisions in one of the earliest studies to connect the risk perception of managers to decisions related to the internationalisation of a firm.[71]

The research that was conducted on risk in the period between the publication of Knight's book in 1921 and 1975, when all three firms had made their first investments abroad, was primarily concerned with definitions, risk and uncertainty, how to quantify risks, and the impact of risk on society. This research also, to a large degree, utilised mathematical approaches in which risk was viewed as something that could be

[67] Knight, F. H. 2012: 365-366.
[68] Ibid.
[69] Dowling, G. R., & Staelin, R. 1994. A model of perceived risk and intended risk-handling activity. *Journal of consumer research*, 21(1), 119-134.
[70] Adams, J. 1995. *Risk*, University College London Press. *London, UK*.
[71] Simpson JR, C. L. & Kujawa, D. 1974. The export decision process: An empirical inquiry. *Journal of International Business Studies,* 5**,** 107-117.

calculated. It was only in the late 20th century that research on risk management increased in volume and scope,[72] but it has since grown into an important research area.

## 2.3 Risk management research since 1975

In more recent years, risk has become a popular research area, and several studies situated within different disciplines have been conducted on risk, risk management, and its implications. In particular, the concept of risk management has grown in importance since the mid-1970s.[73] This section will review the research carried out on risk and risk management in modern times, specifically post-1975, when the three firms all had investments abroad. The focus will be on research on risk management in relation to FDI. The information discussed in this section will have relevance for the later discussions on the three firms' risk management decisions.

As a scientific field, risk assessment and management is relatively new, only 30 to 40 years old,[74] and systematic application of risk evaluations became common in the late 20th century.[75] Risk management is defined as the scientific process in which components of risks are defined,[76] or alternatively, the process by which a firm methodologically addresses risks associated with its activities.[77] Risk management can involve many aspects of business including financial, commercial, technical, environmental, and political. Koller explains that typical risk management involves the listing of risks, a discussion of uncertainty, and the creation of mitigation plans for the risks that have been identified and discussed.[78] Raz and Hillson found that typical risk management steps include planning, identification, analysis, treatment, and

[72] Crockford, G. N. 1982.
[73] Inhaber, H. & Norman, S. 1982.
[74] Aven, T. 2016. Risk assessment and risk management: Review of recent advances on their foundation. *European Journal of Operational Research*, 253, 1-13.
[75] Jaeger, C. C., Webler, T., Rosa, E. A. & Renn, O. 2013. *Risk, uncertainty and rational action*, Routledge: 9.
[76] Renn, O. 1998.
[77] IRM 2002. A Risk Management Standard.
[78] Koller, G. 2005. Risk assessment and decision making in business and industry: A practical guide, CRC Press.

control.[79] These steps are a recurring theme in the majority of publications on risk management and risk assessment. Kleindorfer and Saad, for example, argued that the first step in any risk management process is the identification of risks.[80] Further, the 2014 Annual Report of the Government Chief Scientific Adviser in the United Kingdom on Innovation and Risk, states that managers should first seek to understand the risk or opportunity through analysis before deciding whether the risks needs managing and what the potential cost of this might be.[81] The first step in a risk management process for a firm seeking to invest abroad is to identify and assess risks, and then decide which risks to make mitigation plans for.

Although there is agreement on parts of the risk management process, there are also some divergent ideas. This situation has led to several attempts to establish standards for risk management and risk assessment. Various national and international groups have produced such standards since the early 2000s.[82] The aim has been to establish standards that can be agreed upon by multiple people or parties, either within specific disciplines or more generally.[83] The best known of these attempts is the standard published by the International Organization for Standardization (ISO) in 2009. The background to the standard was the Australian/New Zealand risk management standard from 2004.[84] The 2009 standard was named ISO: 31000 Risk Management – Principles and Guidelines. A guide for vocabulary (Guide 73) was published in 2002 as a result of cooperation between ISO and the International Electrotechnical Commission (IEC). This guide was revised in 2009 and is closely related to the ISO 31000 Risk Management Standard. A further standard for risk assessment techniques was published by ISO and IEC in 2010 to complement the ISO 31000 standard.[85] ISO claimed that the aim of the standard was to establish a number of principles of effective

[79] Raz, T. & Hillson, D. 2005. A comparative review of risk management standards. *Risk Management***,** 53-66.
[80] Kleindorfer, P. R. & Saad, G. H. 2005. Managing disruption risks in supply chains. *Production and operations management,* 14**,** 53-68.
[81] 2014. Annual Report of the Government Chief Scientific Adviser. Innovation: Managing Risk, Not Avoiding It. The Government Office for Science, London. *Annual Report of the Government Chief Scientific Adviser.*
[82] Raz, T. & Hillson, D. 2005.
[83] Aven, T. 2012a.
[84] Leitch, M. 2010.
[85] ISO. *ISO 31000 - Risk management* [Online]. Available: http://www.iso.org/iso/home/standards/iso31000.htm [Accessed 18/04/2016].

risk management. The standard lists several options open to a decision-maker in approaching risk. These options are:

a) Avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk;

b) Taking or increasing the risk in order to pursue an opportunity;

c) Removing the risk source;

d) Changing the likelihood;

e) Changing the consequences;

f) Sharing the risk with another party or parties (including contracts and risk financing);

g) Retaining the risk, based on an informed decision.[86]

The ISO standard was not created for any particular industry and should be applicable to any public or private enterprise, association, group, or individual.[87] One of the greatest strengths of the ISO standard is that it was developed by a well-known international organisation with several knowledgeable participants from different interest groups. Another strength of the standard is ISO's consensus requirements; however, this is also one of its weaknesses, as the need to achieve consensus makes it difficult to establish clear definitions. Consequently, the standard has been heavily criticised for its lack of concrete definitions and descriptions. The definition of risk in the standard is the "effect of uncertainty on objectives" and the standard can, as previously discussed, be applied to both positive and negative risk.[88] ISO took several other definitions into consideration to arrive at their final definition.[89] The inclusion of both negative and positive risk has been identified as a strength by several researchers.[90] However, the definition has also been criticised for the way it has been implemented throughout the actual standard,[91] and for its vagueness. For instance, Aven argues that the vagueness of the definition can lead to numerous different

[86] Purdy, G. 2010.
[87] ISO 2009. ISO 31000 - Risk management: Introduction.
[88] Ibid.
[89] Purdy, G. 2010.
[90] Purdy, G. 2010, and Aven, T. 2011. On the new ISO guide on risk management terminology. *Reliability engineering & System safety,* 96**,** 719-726.
[91] Leitch, M. 2010.

interpretations.[92] Both the definition of risk and other definitions used in the standard are in many ways vague, complicated, and open to interpretation.[93] The approach to risk management that is recommended in the ISO standard is also problematic in that, if correctly followed, there will be no reason to implement risk management strategies below the accepted level of risk. This is even the case when this could be cost-effective. A firm looking to invest abroad would also likely benefit from implementing cost-effective risk-management strategies below the accepted level of risk. A firm would thereby miss out on potential cost-effective strategies if the ISO standard were followed.

Although the standard has been heavily criticised, it also has some positive points, one being that the ISO standard repeatedly stresses that risk management should be an integral part of management processes at all levels.[94] The mandatory five-year revision of the standard commenced in 2015, and an updated version of the standard was published in early 2018.[95]

ISO is not the only organisation to have developed risk management standards and/or frameworks. The National Institute of Standards and Technology (NIST), which is under the United States Department of Commerce, established a framework of risk management and information systems in 2010.[96] This standard is based on several of the same principles as other risk management approaches, such as 'assess and implement' principles. However, the focus in the NIST standard is limited to information systems and the framework is therefore not applicable to other types of projects. In 2002, the three main risk organisations in the UK, including the Institute of Risk Management, published 'A risk management standard'. The aim of this standard was to, "Ensure that there is an agreed terminology related to the words used, a process by which risk management can be carried out, and an objective for risk

[92] Aven, T. 2012a.
[93] Leitch, M. 2010, and Aven, T. 2011.
[94] Leitch, M. 2010.
[95] Tranchard, S. 2015. *The revision of ISO 31000 on risk management has started* [Online]. ISO. Available: http://www.iso.org/iso/home/news_index/news_archive/news.htm?Refid=Ref1963 [Accessed 28/04/2016].
[96] NIST. 2014. *RISK MANAGEMENT FRAMEWORK (RMF) OVERVIEW* [Online]. Available: http://csrc.nist.gov/groups/SMA/fisma/framework.html [Accessed 11/05/2016].

management".[97] This standard does, like the ISO standard, recognise that risk can be both positive and negative, and the standard uses the same vocabulary established in the ISO/IEC guide. This standard is thus faced with some of the same issues as the ISO 31000 standard does in regard to vague definitions. Other examples of risk management standards and frameworks include the Practice Standard for Project Risk Management, which was published by the Project Management Institute, a global management organisation, in 2009.

### 2.3.1 Foreign Direct Investments and risk management research

FDI is often defined as requiring ownership of a minimum of 10 per cent of the equity in a foreign company.[98] The Norwegian Central Bank (Norges Bank) defined FDI as a, "Cross-border investment made by an investor with a view to establish a lasting financial interest in an enterprise and exerting a degree of influence on that enterprise's operation and where the foreign investor holds an interest of at least 10 per cent in equity capital".[99] According to the Norwegian Central Bank's definition, a degree of influence is of importance in FDI. A minority shareowner can influence the operation through, for example, control of technology, management, or through key organisational systems.[100] FDIs and multinational enterprises (MNEs) have existed for a long time. The banking industry in particular has a long history of investments abroad, and banks might arguably be considered the first multinational enterprises. The mining industry also has a long history of owning mines abroad.[101] However, the wider importance of international business and FDIs has grown exponentially since 1945. According to Aharoni and Brock, the number of MNEs in 2005 was 10.6 times

[97] IRM 2002. A Risk Management Standard.
[98] Benito, G. R. & Gripsrud, G. 1992. The expansion of foreign direct investments: discrete rational location choices or a cultural learning process? *Journal of International Business Studies***,** 461-476.
[99] Norges bank. 1996. *Utenlandske investeringer i Norge.* [Online]. Available: http://www.norges-bank.no/Publisert/Pressemeldinger/1996/prm19961103171425html/ [Accessed 20/09/2016].
[100] Buckley, P. J., Devinney, T. M. & Louviere, J. J. 2007. Do managers behave the way theory suggests? A choice-theoretic examination of foreign direct investment location decision-making. *Journal of international business studies,* 38**,** 1069-1094.
[101] Wilkins, M. 1998. Multinational corporations: An historical account. In *Transnational corporations and the global economy*. Palgrave Macmillan, London: 95-96.

that in 1969, and the sales of foreign affiliates of MNEs was double that of world exports.[102]

Alongside the growth in MNEs and FDIs, there was also an increase in research and literature published on the topics.[103] In particular, FDI has been a popular academic research area, as evidenced in the volume of articles published on the topic and the many reviews of various research on FDI.[104] The field of international business research emerged in the 1960s and has grown immensely since,[105] but various research on FDI has also been carried out within other fields. A study by Werner in 2002, which reviewed international management research published in the top management journals between 1996 and 2000, found that FDI was the most popular research topic in this period.[106]

One of the major theories that emerged in relation to FDI was Johanson and Vahlne's internationalisation process theory, also known as the Uppsala model, first published in 1977. The theory is primarily concerned with internationalisation, but risk is included as a part of this process. The first FDI made by a firm is, according to this theory, usually to a physically or culturally close country.[107] This is due to international investments being considered risky, but comparatively less so if they are in 'nearby' countries.[108] A nearby country is defined as a country with a similar language, culture, and/or political systems, where the number of factors limiting the flow of information to and from the market is low.[109] A firm without foreign market experience is likely to experience greater problems in managing foreign operations; but with experience

[102] Aharoni, Y., & Brock, D. M. 2010. International business research: Looking back and looking forward.
[103] Wilkins, M. 2015. The History of Multinationals: A 2015 View. *Business History Review*, 89(3), 405-414.
[104] See for example Buckley & Casson 2009, and Bloningen 2005.
[105] Wright, R. W., & Ricks, D. A. 1994. Trends in international business research: Twenty-five years later. *Journal of International Business Studies*, *25*(4), 687-701.
[106] Werner, S. 2002. Recent Developments in International Management Research: A Review of 20 top Management Journals. *Journal of Management*, 28 (3), 277-305.
[107] Johanson, J. & Vahlne, J.-E. 1977. The internationalization process of the firm-a model of knowledge development and increasing foreign market commitments. *Journal of international business studies***,** 23-32.
[108] Amdam, R. P. 2009. The internationalisation process theory and the internationalisation of Norwegian firms, 1945 to 1980. *Business History,* 51**,** 445-461.
[109] Johanson, J. & Vahlne, J.-E. 1977.

comes understanding and knowledge, which makes it more likely that the firm would seek to enter a physically and/or culturally distant country. This is because increased knowledge decreases uncertainty, and thereby the associated risks.[110] This aspect of internationalisation process theory has been heavily criticised and the empirical results have been mixed. Benito and Gripsrud conducted a quantitative study on the internationalisation process of Norwegian manufacturing firms up to 1982 and found nothing to support the cultural/physical distance effect on investment decisions. They therefor also argued that the results showed that the theory is not culturally bonded to Scandinavia, as has been suggested by some researchers.[111]

### 2.3.2 Risk management in FDIs

As previously discussed, risk management is a process through which risks are defined and addressed. A risk-management process typically includes planning, identification, analysis, treatment, and control. Several international standards on risk management, as introduced in the prior section, have been established with the aim of helping firms manage risks, and these same steps are likely to be relevant for a firm undertaking an FDI today. The risk perception and risk appetite of managers will potentially affect the way in which risk is identified, analysed, and treated. For example, managers with less international experience are usually more risk-averse.[112] Boddewyn argued that, often, in the foreign investment decision process, the decision-maker(s) does not undertake full searches and rational analyses before reaching a final decision. This is because a lack of time, as well as economic and organisational constraints, limit the number of alternatives that are considered. It can also be due to individual participants' risk perception, subjective expectations, and decision precedents.[113] The Annual Report of the Government Chief Scientific Adviser further found that decisions are frequently based on imperfect information, and that this is often the only way to get things done.

[110] Anderson, E. & Gatignon, H. 1986. Modes of foreign entry: A transaction cost analysis and propositions. *Journal of international business studies*. 1-26.
[111] Benito, G. R. & Gripsrud, G. 1992.
[112] Buckley, P. J., Devinney, T. M. & Louviere, J. J. 2007.
[113] Boddewyn, J. J. 1983. Foreign and domestic divestment and investment decisions: like or unlike?. *Journal of International Business Studies*, 14(3), 23-35.

On this point, the report also noted that not taking action is a choice that may itself create risks.[114]

Managers base their decisions on whether to invest abroad on a variety of aspects. Buckley found that decision-makers emphasise production costs, access to resources, market growth, trade barriers, country-specific factors, and languages when considering a foreign investment.[115] All these issues can create risks for the firm considering an FDI. Risk can also arise from other sources including the market, political, or socio-cultural environment in the host country.[116] County-specific risks are unique risks that the investing firm might face when investing in a specific country compared to other countries. Nordal argues that country-specific risks can be divided into three subcategories: economic risk, commercial risk, and political risk. Economic risks include, for example, exchange rates and other economic developments that might affect the profitability of the investment. Commercial risks are related to the investment specifically and include issues such as the fulfilment of contracts. Political risk is one of the common risks a firm can face when investing abroad, and in many cases the most significant.[117] A country risk analysis with the aim of predicting future conditions can help the firm to decide if, and how it wants to manage the risks involved with the investment. The information used in a country risk analysis can be taken from written reports, from the financial market, and summary measures such as risk indices and ratings.[118]

#### *2.3.2.1 Environmental uncertainties, political risk, and forced divestment*

Environmental uncertainty, and in particular political risk, is one of the major research areas within the field of international business studies.[119] Political risk includes some of the primary risks that can be faced by firms when they invest abroad; as such, it is

[114] 2014. Annual Report of the Government Chief Scientific Adviser. Innovation: Managing Risk, Not Avoiding It. Evidence and Case Studies.
[115] Buckley, P. J., Devinney, T. M. & Louviere, J. J. 2007.
[116] Heidenreich, S., Mohr, A., & Puck, J. 2015. Political strategies, entrepreneurial overconfidence and foreign direct investment in developing countries. *Journal of World Business*, *50*(4), 793-803.
[117] Nordal, K. B. 2001. Country risk, country risk indices and valuation of FDI: a real options approach. *Emerging Markets Review*, *2*(3), 197-217.
[118] Nordal, K. B. 2001.
[119] Kobrin, S. J. 1979. Political risk: A review and reconsideration. *Journal of International Business Studies***,** 67-80.

a significant determinant of FDI decisions and it continues to be of importance even when the FDI is in place.[120] Environmental uncertainty includes political instability, government policy instability, social uncertainties, and natural uncertainties. Democratic changes in government and changes of heads of states can also give rise to political risk.[121] Environmental uncertainties can have severe impacts on the investment and even lead to forced divestment or expropriation. An objective analysis of those types of risk can thus have a positive impact on the success of the foreign direct investment in the long term.[122]

Political risk is the unpredictability or instability of legal, political, and regulatory conditions in a country.[123] It is often defined as the risk that the government will "[…] expectantly change the 'rules of the game' under which business operate."[124] It is usually associated with changes in political regimes and can result from wars, revolution, coup d'état, or political turmoil.[125] Alcantara and Mitsuhashi found that political risk could have an impact on location decisions for FDIs.[126] This intersection between politics and international business was a relatively new and loosely defined academic field when Kobrin published the paper 'Political risk: A review and reconsideration' in 1979. The field has since grown, but Kobrin found that several definitions of political risk had already been created by 1979. Kobrin observed that the most common definitions were related to (usually host) government interference with business operations, but that some authors defined political risk in terms of events.[127] Most of the research on political risk conducted prior to Kobrin's review had primarily focused on how to define the term. Kobrin's paper examined political risk in more depth, including managers' responses to political risk, and found that political instability was cited as a major influence on managers' decisions in regard to foreign

[120] John, A., & Lawton, T. C. 2017. International political risk management: Perspectives, approaches and emerging agendas. *International Journal of Management Reviews*.
[121] Miller, K. D. 1992.
[122] Erol, C. 1985. An Exploratory Model of Political Risk Assessment and the Decision Process of Foreign Direct Investment. *International Studies of Management & Organization,* 15**,** 75-91.
[123] Alcantara, L. L., & Mitsuhashi, H. 2012. Make-or-break decisions in choosing foreign direct investment locations. *Journal of International Management*, 18(4), 335-351.
[124] Busse, M., & Hefeker, C. 2007. Political risk, institutions and foreign direct investment. *European journal of political economy*, 23(2), 397-415.
[125] Miller, K. D. 1992.
[126] Alcantara, L. L., & Mitsuhashi, H. 2012.
[127] Kobrin, S. J. 1979.

investment, but that usually no formal or systematic assessment of the political environment and the potential impact of this on the firm was carried out.[128]

Kobrin found that the manager's typical response to political risk was avoidance.[129] Casson and De Silva also found that avoidance or rapid withdrawal was advocated as the main strategy when political risks arose,[130] and John and Lawton found that firms typically deal with political risk in a defensive mode.[131] Consequently, countries with high political risk usually receive lesser FDI inflows.[132] Kobrin criticised the main methods for evaluating political risk at the time for primarily measuring political instability, rather than the potential impact of the political environment upon the firm. Kobrin argued that instead, the areas of interest should be defined in terms of the current and potential impact(s) of the political environment upon the operations of the firm.[133] However, Kobrin's paper has been criticised for not being longitudinal, and for being speculative and tentative.[134] Further, avoidance or rapid withdrawal does not help to explain why some firms decide to invest in politically unstable countries. John and Lawton[135] found that firms invest in political risk-filled countries for several reasons. First, firms with previous experience from investments in political risk-filled areas are more likely to invest in similar contexts. Relations between the home and host country, the need to leave the home country, and the size of the host country economy are also reasons firms might invest in countries with high political risk.[136]

Political risk can lead to forced divestment or expropriation. Multinational firms face an increasing risk of expropriation when political hazards in a host country increase.[137] In an article published in 1980, Kobrin studied foreign enterprises and forced divestment, specifically at how and why forced divestments had occurred between 1960 and 1976. Korbin found that four types of forced divestment were recurring in

[128] Kobrin, S. J. 1979.
[129] Ibid.
[130] Casson, M., & Da Silva Lopes, T. 2013.
[131] John, A., & Lawton, T. C. 2017.
[132] Busse, M., & Hefeker, C. 2007.
[133] Kobrin, S. J. 1979
[134] Erol, C. 1985.
[135] John, A., & Lawton, T. C. 2017.
[136] Ibid.
[137] Busse, M., & Hefeker, C. 2007.

the literature: formal expropriation, intervention, forced sale, and contract renegotiation.[138] Kobrin's research relied on secondary data, which is one of its greatest weaknesses, as it means that there is no way to accurately assess the coverage of the data used in the paper. There could therefore be several other cases of forced divestment that were not included in Kobrin's data. In addition, the paper does not mention any strategies for avoiding forced divestments, but simply describes what happened when, and how, and in which industries forced divestment happened most frequently. Kobrin's article, therefore, does not provide much guidance to a firm that wants to manage its risk related to a forced divestment. The paper mentions some theories regarding the impact of ownership on forced divestment. It is argued that the data proves that wholly owned manufacturing subsidiaries are more vulnerable than joint ownership enterprises, except when the joint ownership is with the local government. [139] However, Kobrin does not go into detail on why this is the case, and other researchers have shown that a joint venture with the local government can be advantageous for limiting risk, rather than disadvantageous, as Kobrin found.[140]

To sum up, a firm seeking to invest abroad can run into several risks. Research on risk and risk management, in particular in relation to FDI, has increased in scale and scope since 1975, when all three firms in this study had made their first investments abroad. Several international standards for risk management have also been published since then. A firm that invests abroad today will have a wide variety of options in regard to how to identify and manage the risks involved. The preparation and decision making undertaken by the firm are important to how, and if, the firm will manage those risks. The risk perception of the firm will also affect how the risks are managed, and how prepared to face them the firm is. Political risk is a major concern for firms that invest in politically unstable countries.

[138] Kobrin, S. J. 1980. Foreign enterprise and forced divestment in LDCs. *International Organization*, 34, 65-88.
[139] Ibid.
[140] James, B. E. & Vaaler, P. M. 2013. Minority rules: State ownership and foreign direct investment risk mitigation strategy.

## 2.4 Risk-management strategies

Once a firm that is seeking to invest abroad has identified and assessed the risk associated with the investment, the next step is to decide if and how to manage it. This can be done by implementing risk-management strategies. A risk-management strategy aims to reduce the impact a potential risk can have on the investment and the firm.[141] Once the risk has been identified, a firm can utilise several risk-reducing strategies; one of the best-known is financial risk-reduction, such as purchase of insurance. Ownership structures can also be used to manage risk. Furthermore, risk can be managed strategically through, for example, avoidance, control, cooperation, imitation, and flexibility.[142] Avoidance as a risk management strategy is suggested as one of the options decision-makers can take in response to risk in the ISO standard on risk management.[143] Avoidance occurs when the firm and its managers consider the risk to be at an unacceptable level. In this situation, the manager can respond by either postponing the investment or withdrawing, if the firm is already involved.[144] This section will examine three different strategies that are commonly used by firms that invest abroad to manage the risks involved with the investment.

### 2.4.1 Insurance

Insurance is an effective risk-mitigation strategy because firms can eliminate risks for a fixed cost.[145] Insurance is one of the oldest strategies for coping with risk, and it can be traced back to Mesopotamia. The code of Hammurabi from 1950 BC laid the foundation for the institutionalisation of risk.[146] The first insurance company was established in London in 1688.[147] A large insurance industry that helps multinational companies mitigate risk has since emerged, and the use of insurance to mitigate against political risk is common today. One of the largest groups of insurance claims associated with political risks in history occurred in the wake of the Argentinian

[141] Kobrin, S. J. 1979
[142] Miller, K. D. 1992.
[143] Purdy, G. 2010.
[144] Miller, K. D. 1992.
[145] Knight, F. H. 2012: 247-250
[146] Covello, V. T. & Mumpower, J. 1985
[147] Ball, D. J. 2007. The evolution of risk assessment and risk management: a background to the development of risk philosophy. *Arboricultural Journal,* 30**,** 105-112.

financial crisis in 2002.[148] Principles of insurance have been applied to several areas, such as the loss of ships and cargo, theft and burglary, embezzlement by employees, and excessive losses through credit extension.[149] Insurance firms usually divide political risk into three categories: war and political violence; expropriation/breach of contract; and, transfer risk.[150] Firms can eliminate these three types of risks for a cost, through the purchase of insurance.[151] However, insurance, when it is available, is not always affordable. Commercial risk, changes in government regulation, and discrimination against foreign firms are examples of risks that are typically costly to insure against.[152]

### 2.4.2. Entry mode and ownership structure

When a company invests abroad, its management must decide on which entry mode they want to utilise and how the ownership structure should be organised. These decisions are often taken simultaneously.[153] Entry mode has been a common research theme within the field of international business, and several articles have been published in academic journals on the topic.[154] Brouthers and Hennart found that there are three main types of entry mode: contracts, joint ventures, and wholly owned subsidiaries. Entry mode can also be analysed as green field investment versus acquisitions. Changing the initial entry mode chosen is difficult and time-consuming, and the choice should therefore be seen as a long-term decision of strategic importance.[155] The entry mode the firm selects will also have an impact on how much risk, and which types of risk, are likely to be associated with the investment. A green-field investment involves starting a new company from scratch and is the opposite of an acquisition. An acquisition is the purchase of sufficient stock in an already existing

[148] Jensen, N. 2008. Political risk, democratic institutions, and foreign direct investment. *The Journal of Politics,* 70**,** 1040-1052.
[149] Knight, F. H. 2012: 247-250
[150] Jensen, N. 2008.
[151] Knight, F. H. 2012: 247-250
[152] Casson, M., & Da Silva Lopes, T. 2013.
[153] Kogut, B. & Singh, H. 1988. The effect of national culture on the choice of entry mode. *Journal of international business studies.* 411-432.
[154] Griffith, D. A., Cavusgil, S. T., & Xu, S. 2008. Emerging themes in international business research. *Journal of International Business Studies*, *39*(7), 1220-1235.
[155] Brouthers, K. D. & Hennart, J.-F. 2007. Boundaries of the firm: Insights from international entry mode research. *Journal of Management,* 33**,** 395-425.

firm to control it.[156] Acquiring an existing firm rather than establishing a new firm can have several advantages; acquisition limits the time needed before the business can be in operation and can also give access to a pre-established market position.[157]

The type of investment the company is likely to choose depends on a variety of factors, such as previous experience and opportunities. The decision is, according to Tomassen, Lawrence and Benito, primarily driven by strategic factors, environmental factors, and transactional factors.[158] Benito also found that smaller firms often have a narrower range of risk-management strategies available to them, due to limited financial and managerial resources.[159] The choice of entry mode ultimately depends on how much risk the company is willing to take in return for the anticipated greater control and potentially higher returns.[160] The ISO 31000 Risk Management Standard includes "sharing the risk with another party or parties" as a risk management strategy available to decision-makers.[161] A joint venture with the aim of limiting risk would therefore follow the principles stated in the ISO standard.

Political risk in the host country increases the probability of a firm choosing shared ownership as a strategy.[162] A firm is most likely to choose the entry mode that offers the highest risk-adjusted return on investment.[163] A joint venture involves combining assets in a separate organisation together with one or more firms, where the firms share ownership and control over the separate organisation.[164] A joint venture gives medium-level control, while a wholly owned subsidiary gives the most control, and thereby is the highest risk. Greater ownership increases the control the firm gets over its investment, but it also increases the risks due to the higher responsibility for the

[156] Kogut, B. & Singh, H. 1988.
[157] Benito, G. R. 1996. Ownership structures of Norwegian foreign subsidiaries in manufacturing. *The International Trade Journal*, 10**,** 157-198.
[158] Tomassen, S., Welch, L. S. & Benito, G. 1998. Norwegian companies in India: Operation mode choice. *Asian Journal of Business and Information Systems. Vol.3 (1).*
[159] Benito, G. R. 1996.
[160] Brouthers, K. D. & Hennart, J.-F. 2007
[161] Purdy, G. 2010.
[162] Benito, G. R. 1996.
[163] Agarwal, S. & Ramaswami, S. N. 1992. Choice of foreign market entry mode: Impact of ownership, location and internalization factors. *Journal of international business studies***,** 1-27.
[164] Kogut, B. & Singh, H. 1988. The effect of national culture on the choice of entry mode. *Journal of international business studies.* 411-432.

decision-making. Control is therefore the most important determinant of risk and return.[165]

A cooperative strategy such as a joint venture involves increased exposure to opportunistic behaviours by the cooperating parties.[166] Perry found that a joint venture subsidiary might, for example, find it difficult to access technology and know-how, which a wholly owned subsidiary would have easy access to.[167] A study by James and Vaaler in 2013 found that involving the local government as a minority shareowner in direct investments in countries characterised by political risk, can function as a risk-mitigation strategy. They found that this was the case when the local government held less than 50 per cent of the shares, and that the risk mitigation was greatest when the local government held between 21-30 per cent of the shares. Joint ownership with the government in countries with stable politics, on the other hand, contributes to increased risk, even at lower levels of state ownership.[168] Joint ventures can also reduce risk by bringing in specialists who know more about a problem to the investment.[169]

### 2.4.3 Networks, relationships, and trust

Networks, relationships, and trust can help in the mitigation of cross-border risks.[170] Relationships and networks are an important resource for firms as they can grant access to further knowledge and markets, together with benefits such as access to other relationships, resources, and organisations. Networks are particularly important in the early phases of internationalisation. The literature distinguishes between several different types of networks, including business networks with other businesses, social networks, and networks of parties the firm has done business with previously.[171] Research has shown that networks have been particularly important in the

[165] Anderson, E. & Gatignon, H. 1986.
[166] Miller, K. D. 1992.
[167] Parry, T. G. 1973. The international firm and national economic policy: A survey of some issues. *The Economic Journal,* 83**,** 1201-1221.
[168] James, B. E. & Vaaler, P. M. 2013.
[169] Knight, F. H. 2012.
[170] Doh, J. P., Lawton, T. C., & Rajwani, T. 2012. Advancing nonmarket strategy research: Institutional perspectives in a changing world. *The Academy of Management Perspectives*, 26(3), 22-39.
[171] Ritter, T., Wilkinson, I. F., & Johnston, W. J. 2004. Managing in complex business networks. *Industrial marketing management,* 33(3), 175-183.

internationalisation process for medium and small firms. Networks play a role in the development of a firm's operations in foreign markets, where a firm's degree of internationalisation reflects the degree of internationalisation of its network.[172] Cooperation and strategic alliances can, however, also create risks. For instance, conflicts can arise due to opportunistic behaviour of participants, and individual interests. This is known as 'relational risk'. Relational risks can be managed through control or trust, where control refers to the process of influencing the behaviour of the partner or participants.[173]

Trust is an important aspect of any network. Trust can be defined as the willingness to be vulnerable under conditions of risk and interdependence.[174] Both risk and interdependence are necessary components of trust. Trust changes over time and can develop, decrease, or increase.[175] Trust is seen as a measure that firms can use to mitigate any opportunistic behaviour of partners, for example in a joint venture. It can also help increase information transfer[176], and it can lead to low risk perception by the investing firm.[177] Building networks and relationships and maintaining trust can help a firm mitigate risks in FDIs. It can also help integrate the cooperating partners in an alliance.[178] In developing countries where political risk is more salient, the level of risk can be reduced by shaping interactions with stakeholders and host country governments.[179]

For a firm seeking to invest abroad, there are several approaches to risk mitigation, and many risk-management strategies that can be implemented after the risks have been identified. A firm can manage or mitigate risk through financial methods, such as insurance policies; it can also divide the risk between several partners in a joint

[172] Björkman, I., & Forsgren, M. 2000. Nordic international business research: a review of its development. *International Studies of Management & Organization*, 30(1), 6-25.
[173] Das, T. K., & Teng, B. S. 2001. Trust, control, and risk in strategic alliances: An integrated framework. *Organization studies*, 22(2), 251-283.
[174] Rousseau, D. M., et al. 1998. Not so different after all: A cross-discipline view of trust. *Academy of management review*, 23.3. 393-404.
[175] Ibid.
[176] Ibid.
[177] Das, T. K., & Teng, B. S. 2001
[178] Ibid.
[179] Heidenreich, S., Mohr, A., & Puck, J. 2015. Political strategies, entrepreneurial overconfidence and foreign direct investment in developing countries. *Journal of World Business*, 50(4), 793-803.

venture; and networks and trust can be used to mitigate risks. Several of the risk-management strategies mentioned in this chapter have been recognised for a long time, and could thus have been relevant for the three firms studied in this research. However, the academic interest in risk-management strategies has increased since 1975, when the three firms had all made their first investments abroad.

## 2.5 Research on internationalisation, risk, and Norwegian FDIs

Internationalisation has grown into a popular research area within several different fields. This has also been the case for research on Norwegian firms, and research using historical methods. This section will review research that has been carried out on FDIs by Norwegian firms, and in the field of business history. This will highlight the gaps that the present research aims to contribute to filling.

### 2.5.1 Risk and internationalisation in business history literature

Business history as a sub-discipline can be traced back to the 1920s, though it expanded as an academic field during the 1960s.[180] The field of business history has focused to a large extent on studying multinational firms and internationalisation, and international business is one of the areas in which the contributions of business historians are most widely recognised.[181] Increased academic interest in the topics of internationalisation and multinational enterprises can be seen from the 1970s. A special issue of the Business History Review on multinational enterprises, published in 1974, was an important driver of the growing popularity of multinational firms as a research field for business historians.[182] However, amongst international business scholars, the use of historical methods and data has been limited, even though there is a general agreement that this type of research makes important contributions. Jones

[180] Álvaro-Moya, A. & Donzé, P.-Y. 2016. Business History and Management Studies. *Journal of Evolutionary Studies in Business,* 1**,** 122-151.
[181] Kipping, M. & Üsdiken, B. 2008. Business History and Management Studies. *In:* Jones, G. & Zeitlin, J. (eds.) *The Oxford Handbook of Business History.* Oxford Handbooks: 104.
[182] Buckley, P. J. 2009. Business history and international business. *Business History,* 51**,** 307-333.

and Khanna found that none of the articles published in the Journal of International Business Studies between 1990 and 2006 used historical data.[183]

The majority of the research on FDIs and multinational enterprises (MNEs) in business history has focused on the period following the Second World War, although there is some research that considers a longer timeline or discusses earlier periods. Wilkins published several papers on MNEs prior to 1945 and papers that consider a longer timeline; examples include *Multinational Oil Companies in South America in the 1920s*, *Japanese Multinational Enterprises Before 1914*, and *Japanese Multinationals in the United States: Continuity and Change, 1879-1990*.[184] All three of these papers focused on MNEs and FDIs from a historical perspective with a focus on the period before the Second World War. In the paper about Japanese multinational enterprises before 1914, Wilkins, one of the foremost researchers on multinational enterprises from a historical perspective, criticises the lack of research on the historical development of Japanese multinational firms before the Second World War.[185] A majority of the business history research on internationalisation has instead focused on the determinants of internationalisation, or internationalisation patterns. Examples of this include DeSevilla's article about Renault's establishment in southern Europe,[186] and Wilkin's historical overview of the internationalisation of insurance companies.[187] Other common research themes within business history and FDI include the impact of FDI on the host nation, explored in Bostock and Jones' article from 1994, which looked at how foreign MNEs invested in British manufacturing and the impact of

[183] Jones, G. & Khanna, T. 2006. Bringing history (back) into international business. *Journal of International Business Studies,* 37**,** 453-468.
[184] Wilkins, M. 1974. Multinational Oil Companies in South America in the 1920s: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, and Peru. *Business History Review*, 48(3), 414-446. And Wilkins, M. 1986. Japanese multinational enterprise before 1914. *Business History Review*, 60(2), 199-231. And Wilkins, M. 1990. Japanese multinationals in the United States: Continuity and change, 1879–1990. *Business History Review*, 64(4), 585-629.
[185] Wilkins, M. 1986. Japanese multinational enterprise before 1914. *Business History Review*, 60(2), 199-231
[186] De Sevilla, T. F. 2016. International Business in Southern Europe: Renault in Italy, Portugal and Spain, 1908-2007. *Journal of Evolutionary Studies in Business,* 2**,** 129-155.
[187] Wilkins, M. 2009. Multinational enterprise in insurance: An historical overview. *Business History*, 51**,** 334-363.

this.[188] Management of multinational firms, both home and abroad, has been another common research area within business history.

Risk related to internationalisation, and in particular research on how firms that have internationalised have dealt with risk, have been a less common topic within business history research. Molland and Tennent studied how firms reacted to and adjusted to double taxation,[189] while Hagen examined the risks related to patent regulations and German FDIs.[190] Both papers focused on very specific types of risk and how firms reacted to these. Schroter looked at risk and control amongst German business in Scandinavia between 1918 and 1939. However, this research focused more on the aim of the investing firms to secure raw material deliveries and to gain strategic security against competitors, and risk evaluation and risk management in the investments were only a minor feature of the research.[191] However, risk was a major focus of Haggerty's study of the Liverpool slave trade, which looked at how those involved with the slave trade embraced and managed the associated risk.[192] The majority of the risks involved in the slave trade were different from the risks involved with an FDI, but networks and trust are mentioned in this study as risk management strategies. The research therefore shares some similarities with studies of risk management in relation to FDI. Another historical research that includes an element of risk and risk management is Decker's study of Barclays DCO bank in Nigeria between 1945 and 1969, in which the primary focus is on Barclays' ability to adjust to Africanisation policies and its association with colonisation after independence, rather than the risks involved.[193]

Some research has focused more generally on risk related to FDI and on the management of this risk. For instance, Geyikdagi and Geyikdagi conducted a case

[188] Bostock, F., & Jones, G. 1994. Foreign multinationals in British manufacturing, 1850–1962. *Business History*, 36(1), 89-126.
[189] Mollan, S. & Tennent, K. D. 2015. International taxation and corporate strategy: evidence from British overseas business, circa 1900–1965. *Business History*, 57, 1054-1081.
[190] Hagen, A. 1997. Patents legislation and German FDI in the British chemical industry before 1914. *Business history review*, 71, 351-380.
[191] Schröter, H. 1988. Risk and Control in Multinational Enterprise: German Businesses in Scandinavia, 1918-1939. *The Business History Review*, 62(3), 420-443.
[192] Haggerty, S. 2009. Risk and risk management in the Liverpool slave trade. *Business History*, 51.6: 817-834.
[193] Decker, S. 2005. Decolonising Barclays Bank DCO? corporate Africanisation in Nigeria, 1945–69. *The Journal of Imperial and Commonwealth History*, 33(3), 419-440.

study on FDIs in the Ottoman Empire, with a focus on attitudes and political risk.[194] The main risk faced by the firms investing in the Ottoman Empire, they found, was war; thus, the investing firms had to deal with one particular risk, which was not the case for the firms included in this research. Geyikdagi and Geyikdagi's paper also only focused on political risks; other types of risk were not included. Similarly, a study by Jones and Lubinski on the company Beiersdorf primarily focused on how it dealt with the politics of being a German-based company with subsidiaries abroad in the early 1900s. This article explains how the company dealt with political risk through a cloaking strategy; thus, although the article focuses on risk in relation to internationalisation, the scope is much narrower than in the present study.[195] Political risks were also one of the focal points of Lanciotti and Lluch's case study of FDIs in Argentina between 1900 and 1960, together with financial risks.[196] As in Geyikdagi and Geyikdagi's research, this article focused on risk and investments in one specific country. In Lanciotti and Lluch's research, however, risk was only a minor feature of the discussions, and the majority of the article discussed investment patterns in Argentina in the selected period.[197]

Some research has focused on the reactions to and management of risk by firms with FDIs. For example, Blaszczyk examined the FDI of just one firm, DuPont, and the challenges the company faced in a joint venture in Iran in the 1970s.[198] Blaszczyk examined the history of DuPont in Iran between 1972 and 1979 and the risks the company faced when attempting to establish itself in the country. Similarly, Donzé and Kurosawa's research from 2013 focused on how Nestlé coped with nationalisation and political risk in Japan.[199] Both of these studies looked at how risk was managed in one specific country by one specific firm. A study by Storli on Philipp Brothers in

[194] Geyikdagi, V. N. & Geyikdagi, M. Y. 2011. Foreign direct investment in the Ottoman Empire: Attitudes and political risk. *Business History*, 53, 375-400.
[195] Jones, G., & Lubinski, C. 2012. Managing Political Risk in Global Business: Beiersdorf 1914–1990. *Enterprise & Society*, 13(1), 85-119.
[196] Lanciotti, N., & Lluch, A. 2015. Investing in growing markets: opportunities and challenges for multinationals in Argentina, 1900–1960. *Management & Organizational History*, 10.2: 119-135.
[197] Ibid.
[198] Blaszczyk, R. L. 2008. Synthetics for the Shah: DuPont and the Challenges to Multinationals in 1970s Iran. *Enterprise and Society*, 9**,** 670-723.
[199] Donzè, P. Y., & Kurosawa, T. 2013. Nestlé coping with Japanese nationalism: Political risk and the strategy of a foreign multinational enterprise in Japan, 1913–45. *Business History*, *55*(8), 1318-1338.

Bolivia also primarily focused on political risk, and on how the firm dealt with this in one country.[200] However, this research also included a section on how the firm used the lessons learned from the investment in Bolivia in other, later investments, though this section is only brief. An article published by Casson and Lopes in 2013 is one of the few studies that take a historical perspective and focuses specifically on how firms manage risk when they invest in high-risk environments. This is also one of few studies that compare responses to risk across firms.[201] The research is based on both archival sources and secondary data, and contributes to increased knowledge on how firms have viewed risk in relation to FDI throughout history, looking particularly at the issue of why some firms choose to enter risky markets, while others do not. However, this research is limited to a focus on only risk-filled environments; the paper also only presents examples of certain risk management strategies, and the reasoning behind the firms' management of risks is not discussed.

A review of the literature thus shows that no similar research in the field of business history has been carried out. Other research has focused on one type of risk, on a specific firm's investment, or on a certain country. The study by Casson and Lopes is one of the very few that compare different risk management strategies, but the focus is more general. There remains surprisingly little empirical evidence about how and why firms have chosen to manage risk in relation to FDI in the business history literature.

### 2.5.2 Research on Norwegian firms and internationalisation

Research on Norwegian firms that invest abroad has been limited, and most of what does exist has been related to the oil industry and more recent investments. Research regarding inward FDI by foreign firms in Norway has been a more common research topic, and has in general received more attention in Norway throughout history. Norway was also relatively late in investing abroad, which likely also contributed to

[200] Storli, E. "The Birth of the World's Largest Tin Merchant: Philipp Brothers, Bolivian Tin and American Stockpiles". In: Ingulstad, M., Perchard, A., & Storli, E. (Eds.). *Tin and Global Capitalism, 1850-2000: A History of "the Devil's Metal"*. Routledge.
[201] Casson, M., & Da Silva Lopes, T. 2013.

the limited amount of research on the topic. Business history research was first professionalised in Norway during the 1970s, and journalists and part-time historians wrote the first company histories about Norwegian firms.[202] During the 1980s, most of the business history research carried out in Norway was related to a commissioned firm history. FDI was included as a part of this when the company concerned had invested in subsidiaries abroad. Amdam and Sogner's 1994 book about a Norwegian pharmaceutical company is an example of this. Whilst it contains a chapter dedicated to the company's investments abroad, the book is a typical firm history in which it is first and foremost the firm's history that is being told.[203] The majority of corporate history writing presents FDIs similarly to Amdam and Sogner, where the firm's development and history are the central aspects and the FDI is just one part of the firm's history. Examples of this include Sogner's book on the history of Elkem, and Halvorsen's book on Dyno.[204] These books are informative, but they often do not provide deeper insight into the risk management nor the decision-making processes involved in the firms' FDIs. Of the research that has focused on Norwegian outward FDI and internationalisation processes, the majority has focused on the period from the 1990s and until the present day. There is very little research on Norwegian outward investments prior to this.

The majority of research on the outward FDIs of Norwegian firms has consisted of quantitative studies and has mainly focused on the internationalisation process, selection of countries to invest in, or on entry mode. One of the earlier studies on Norwegian outward FDI was carried out by Inge Samdal in 1971, which took a theoretical approach to investments abroad and presented statistical overviews of Norwegian FDIs.[205] The study does discuss some risks that a firm can encounter and some of the risks that Norwegian firms that have invested abroad have experienced; however, it does not go into detail on this subject, and the majority of the book is

[202] Amdam, R. P., & Lange, E. 1994. *Crossing the borders: studies in Norwegian business history*. Scandinavian University Press: Introduction.
[203] Amdam, R. P. & Sogner, K. 1994. Rik på kontraster: Nyegaard & Co; en norsk farmasøytisk industribedrift 1874-1985, Ad Notam Gyldendal: preface.
[204] Sogner, K. 2003. Skaperkraft: Elkem gjennom 100 år: 1904-2004. Messel forl. & Halvorsen, R. 2000. Dyno industrier: fra nasjonal til internasjonal bedrift. Dyno.
[205] Samdal, I. 1976. *Norsk industri i utlandet*. NPI.

dedicated to the theoretical approaches that underlie FDI, together with a simple overview of Norwegian FDIs.

Benito and Gripsrud focused on location choices and cultural learning processes in their quantitative study from 1992. In *The Expansion of Foreign Direct Investment: Discrete Rational Location Choices or a Cultural Learning Process*, Benito and Gripsrud examined the location selections by 93 Norwegian manufacturing firms that invested abroad up to 1982. The study found that the internationalisation process theory did not fit with a large proportion of the investments by Norwegian firms. They also found that physical distance had no impact on the investment decisions taken by the Norwegian firms examined in the study.[206] The research looked at investments by Norwegian manufacturing firms based on a list published in the journal *Norges Industri*. As such, the study has been criticised for the limited amount of FDIs that were included.

Amdam's quantitative study from 2009 was an expansion of Benito and Griprud's study, to include 167 Norwegian manufacturing firms that made an FDI between 1945 and 1980. Amdam included 306 cases of FDI, a significant increase compared to the 201 cases in Benito and Gripsrud's earlier study. Amdam, like Benito and Gripsrud, examined whether or not the Norwegian firms followed the international process theory. The results showed that 41 per cent of the companies Amdam studied made their first FDIs in Scandinavia.[207] Heum carried out another quantitative study on Norwegian firms' internationalisation in 2013, focusing on the 30 biggest companies in Norway. Heum looked at how much internationalisation those companies had undertaken, and how this changed. This was measured by how large a proportion of the companies' sales were abroad, and the number of employees the companies had abroad. Almost two thirds of the 30 largest corporate groups in Norway had a majority of their sales abroad in 2012.[208] It was found that business size tended to affect how great a proportion of the companies' employees worked abroad, where larger

[206] Benito, G. R. & Gripsrud, G. 1992.
[207] Amdam, R. P. 2009. The internationalisation process theory and the internationalisation of Norwegian firms, 1945 to 1980. *Business History,* 51**,** 445-461.
[208] Heum, P. 2013. Vekst og internasjonalisering i norske storforetak.

companies tended to have a higher per centage of workers outside of Norway.[209] However, Heum's research focused on FDIs in the modern era, and risk and risk management were not included.

Benito is one of the most prominent researchers on Norwegian outward FDI, and has conducted several quantitative studies on FDI amongst Norwegian firms. In a 1996 study, Benito focused on entry mode and ownership structures in Norwegian manufacturing firms, in the first large-scale empirical study on Norwegian firms' entry mode and ownership selections.[210] This was a quantitative study and Benito did not attempt to analyse the firms' reasoning behind the selections of ownership structure and entry mode. In 1998, Benito, together with Welch and Tomassen, carried out another study that focused on entry mode. This study investigated 12 Norwegian firms that invested in India in the 1990s, and focused on the selection of entry mode by Norwegian investors. Risk was an important part of this study, making this one of the few studies on Norwegian FDIs where risk has played a central role. The research found that the investments were affected by the firms' knowledge and previous experience in India. The research further found that firms' entry mode selection was influenced by their risk perceptions; the majority of the firms chose joint venture as their entry mode.[211] However, this research looked only at entry mode, and thus other areas of risk management, that may have played a role, were excluded from the research. The study also focused mainly on investments from 1991, a lot later than the investments included in this research. In another study from 2002, Benito et al. examined internationalisation patterns in large firms from Denmark, Finland, and Norway, focusing on investments between 1990 and 1999. However, the research was primarily concerned with the centripetal forces of internationalisation and internationalisation patterns, and did not focus on the details of the investments.[212]

[209] Heum, P. 2013.
[210] Benito, G. R. 1996.
[211] Tomassen, S., Welch, L. S. & Benito, G. 1998.
[212] Benito, G. R., Larimo, J., Narula, R., & Pedersen, T. 2002. Multinational enterprises from small economies: internationalization patterns of large companies from Denmark, Finland, and Norway. *International studies of management & Organization*, 32(1), 57-78.

A quantitative study by Grøgaard and Benito from 2007 explored the different internationalisation processes in different industries. This study looked at the 100 largest Norwegian firms and their investments abroad over the period from 1990 to 2000, and found that firms in different industries followed different internationalisation patterns.[213] Like most of Benito's research, this was a quantitative study with a focus on internationalisation between 1990 and 2000. The study also primarily relied on secondary data. Benito, Lunnan and Tomassen's study from 2011 is another example of quantitative research on Norwegian internationalisation; this research was even more modern, with a focus on the period from 2000 to 2006.[214]

There has been some qualitative and historical research related to investments abroad carried out outside of the corporate history field. Lars Gisenås' book on Norwegian investments in Singapore is one example. The book follows Norwegian business involvement in Singapore, and includes both direct investments and the shipping industries; however, as Singapore has been an important shipping port for Norwegian firms, in this book more attention was paid to the shipping industries than to FDIs.[215] Juuls and Walters' article on Norwegian investments in the UK from 1987 is another example of a qualitative study on Norwegian FDI, focusing on 12 firms that invested in the UK.[216] This is one of few qualitative papers that looks specifically at Norwegian firm's investments abroad. The paper focuses on investments to the UK, rather than on Norwegian investments in general, it looks at issues such as penetration of the British market and how the firms' decision to invest in the UK was reached. However, the paper does not discuss risk or risk management in any way; it is also brief and therefore does not provide an in-depth discussion of any of the themes.

Research on Norwegian FDI has primarily been quantitative with a focus on internationalisation process and entry mode. There are few qualitative studies on the

[213] Grøgaard, B., & Benito, G. R. 2007. The internationalization patterns of Norwegian firms: does industry matter?. In *Multinationals on the Periphery*: 74-97. Palgrave Macmillan UK.
[214] Benito, G. R., Lunnan, R., & Tomassen, S. 2011. Distant encounters of the third kind: Multinational companies locating divisional headquarters abroad. *Journal of Management Studies*, *48*(2), 373-394.
[215] Gisnås, L. 1995. Jakten på kjempemarkedet: Norsk business i Singapore, Fagbokforlaget.
[216] Juul, M., & Walters, P. G. 1987. The internationalisation of Norwegian firms: a study of the UK experience. *Management International Review*, 58-66.

topic, and even fewer studies that emphasise risk and risk management by Norwegian firms. The only research to consider risk in relation to Norwegian FDI is the study by Tomassen, Welch and Benito on Norwegian firms that invested in India. However, this study focused only on entry mode and on investments after 1991. Most of the research on Norwegian outward FDI focuses on the decades after 1990. Benito and Gripsrud's study from 1992 and Amdam's study from 2009 are two of the few studies that consider earlier investments. However, both studies are quantitative and neither consider why Norwegian firms invested abroad, how they chose to do this, or how they chose to manage the risks involved. Understanding of Norwegian firms' views, decisions, and risk management in relation to FDI is therefore limited, particularly in the case of investments made prior to the 1990s.

## 2.6 Summary and conclusion

Risk is a much discussed and debated area, and there are today several different definitions of what the concept entails. There is no universal consensus on what risk entails and how it should be defined. Managers' risk perception will also potentially affect their view of risk. Research on risk and risk management has increased in volume since 1975 and is today a large and important area for any firm seeking to invest abroad. However, risk and risk management also had implications for firms' investments and investment decisions before 1975. As this chapter has shown, some research on risk and management had been conducted before the three firms examined in this research invested abroad, although to a more limited extent than is available today.

Risk management refers to the process by which components of risks are defined, and through which a firm methodologically addresses the risks associated with its activities. How well this is managed can have implications for the success of an FDI, and thus several risk management standards have been published in modern times to help firms navigate this area. There are several different types of risk and issues a firm can encounter in an investment process, spanning from decision-making to investment timing and environmental uncertainty. One of the major research areas in relation to

risk management and FDI has been political risk. After the risks have been identified and analysed, the firm must choose how to best mitigate them. Several different risk management and risk-mitigation strategies have been proposed in the academic research. Insurance is one of the oldest risk-mitigation strategies, while other common strategies for risk management include building relationships and trust, or focusing on certain types of entry mode. These are also risk-management strategies used, to varying degrees, by the three firms in this study to limit or mitigate the risks involved in their investments abroad. Due to the increase in research and knowledge regarding risk and risk management from the late 1970s and early 1980s, it is likely that the risk management in the three firms examined in this research might have been different if they had first invested abroad after the 1980s.

Entry mode is one of the areas on which most research on Norwegian FDIs has focused, but a majority of this research has been based on quantitative analysis. Internationalisation patterns, the internationalisation of the oil industry, and investments made after 1990 are other common themes in research carried out on Norwegian outward FDIs. Only very few published articles on Norwegian outward FDI mention risk and risk management; risk management in relation to FDI by Norwegian firms has not been a common research area, nor within business history research. The once exception to this has been political risk, on which somewhat more research has been conducted. Research on risk management from a historical perspective might help shed new light on how firms chose to manage risks involved with FDIs conducted previous to the publication of the majority of risk research, which occurred after the 1970s. There are, as this chapter has shown, research gaps that this study will help to fill. For instance, it will highlight which risk management strategies were available to the selected firms when they first invested abroad, and explain why they chose to view and manage the risks involved with investments abroad the way that they did.

# 3.0 Method and Primary Sources

The method used in this research is the historical method, with data taken from archival sources supplemented with oral history interviews. The research can thus be classified as business history. This chapter will present a critical discussion of the historical method, examining its strengths and weaknesses in the context of this research. The chapter will also describe the archives that are used in this thesis. This research is primarily based on archival material from the firms themselves, together with company magazines, oral history interviews, newspaper articles, and various government publications primarily from the 1960s and 1970s.

There are several areas of business research to which historical methods can contribute. Examples include access to data that would otherwise not be available to the researcher, and context setting, which is an essential part of conducting historical research. The aim of this chapter is to explain the essential aspects of the historical method, why this was chosen as the method for this thesis, and the benefits associated with it. The chapter will also briefly discuss the use of oral history methods, which is one of the data collection methods used in this research. Three oral history interviews were conducted, one for each of the selected firms. In addition, the chapter will describe and discuss the primary sources used in this research. The main data used in the thesis was collected from the archives of each of the three firms. This is supplemented with oral history interviews and materials from archives and newspapers.

## 3.1 Business history and historical methods

*"Doing history consists of maintaining a careful balance between the present – the research question, the constructs, the narrative – and a sound anchoring in the past – the evidence the archival records, the oral history".*[217]

[217] Decker, S. 2013. The silence of the archives: Business history, post-colonialism and archival ethnography. *Management and organizational History*. Vol.8, No.2: 160.

This section will describe what business history is, and what the historical method entails. Business history is a sub-field of history that emerged as a discipline in the United States during the 1920s at Harvard Business School.[218] Alfred Chandler is often considered the founding father of the modern version of the discipline.[219] Chandler brought the work of business historians to a wider academic audience, and he remains the most widely cited business historian today.[220] Business history can be defined as the study of "[…] the historical evolution of business systems, entrepreneurs, and firms, as well as their interactions with their political economic and social environment".[221] The emphasis in business history is often on factors such as change, growth, development, persistence, and decline over time.[222] This research looks at Norwegian firms' international investments, their international development, and their risk management from a historical perspective, relying on data obtained from archival records and oral history. It can therefore be defined as business history research.

Since the 1990s, there have been repeated requests from several sources to increase the use of historical methods in business studies,[223] and several management journals have shown an increasing interest in history.[224] This has been referred to and is discussed as the "historic turn". In recent times, historical methods have played a growing role in international business,[225] but overall it is still an approach that is often neglected.[226] However, the historic turn has had a more significant impact in organisational studies.[227] There have, for example, been several special issues

[218] Álvaro-Moya, A. & Donzé, P. 2016. Business History and Management Studies. *Journal of Evolutionary Studies in Business,* 1**,** 122-151.
[219] Jones, G. & Zeitlin, J. 2008. *The Oxford handbook of business history*, Oxford Handbooks: 2.
[220] Jones, G; Van Leeuwen, M & Broadberry, S. 2012. The future of economic, business, and social history. *Scandinavian Economic History Review*, 60.3: 225-253.
[221] Jones, G. & Zeitlin, J. 2008: 1.
[222] Clegg, S., & Bailey, J. R. (Eds.). 2007. *International encyclopedia of organization studies*. Sage Publications: 126-127.
[223] Booth, C. & Rowlinson, M. 2006. Management and organizational history: prospects. *Management & Organizational History,* 1**,** 5-30.
[224] Álvaro-Moya, A. & Donzé, P. 2016.
[225] Buckley, P. J. & Pérez, P. F. 2016. The Role of History in International Business in Southern Europe. *Journal of Evolutionary Studies in Business,* 2**,** 1-13.
[226] Buckley, P. J. 2016. Historical Research Approaches to the Analysis of Internationalisation. *Management International Review,* 1-22.
[227] Clegg, S., & Bailey, J. R. (Eds.). 2007: 126-127.

published on organisational studies that focus on the use of historical methods within organisational studies.

Historical methods consist of the analysis of historical data, such as oral history and archive material. This is a distinctive feature of historical research, and those sources are considered primary sources. Several steps are essential to conducting a thorough historical analysis, and one of those is the evaluation of sources. To be able to make claims about the past while using historical data, the researcher must evaluate the sources he or she is using. In order to evaluate the sources, the information found in archives must be analysed in light of the context, the surrounding documents the source was found with, and other available, relevant information.[228] Sources should be interpreted based on both the context of their creation and how they have been stored.[229] Analysing how an archive collection was organised and what kind of material was kept is important because this will have an impact on which interpretations the researcher will be able to draw based on the material found.[230] It is therefore important for the historian to explain why and how the sources were interpreted to reach the conclusions that were drawn.

It is also essential to assess the authenticity of the sources. This is achieved by asking questions such as who created the sources, and for what purpose?[231] In addition, the sources should be situated within a context, by comparing them with other primary and secondary sources. The criticism and evaluation of sources, and how and why they were created, are essential aspects of the historical method, but it is often taken for granted in international business research.[232] This is thus an area where historical methods can contribute to international business research through improved source criticism.

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[228] Yates, J. 2013. Understanding Historical Methods in Organization Studies. In: Bucheli, M. & Wadhwani, R. D. (eds.) *Organizations in time: History, theory, methods*. Oxford University Press: 276.
[229] Decker, S., Kipping, M., & Wadhwani, R. D. 2015. New business histories! Plurality in business history research methods. *Business History*, 57(1), 30-40.
[230] Kobrak, C. & Schneider, A. 2011. Varieties of business history: Subject and methods for the twenty-first century. *Business History*, 53, 401-424.
[231] Carr, E. 2001. *What is history?*. Pallgrave.
[232] Buckley, P. J. & Pérez, P. F. 2016.

The validity and credibility of primary sources are always evaluated before they are used in historical research. Credibility in historical research is based on reputability through a thorough citation practice. This implies that other researchers should be able to, based on citations, find the same document in the archive and evaluate whether or not they agree with the analysis and the interpretations presented. This means that citations must include sufficient information for the readers to be able to locate the document. The citations in historical research are often provided in footnotes, as footnotes offer a space advantage regarding the amount of information needed when claims are based on interpretations of documents from multiple archives, documents, or sources.[233] Within business history research, the references system used is often endnotes. The present thesis uses footnotes to provide citations because multiple sources are used for data, and by looking at the footnotes and references, other researchers should be able to locate the sources that are used in this research.

Within historical research, it is common for the researcher to go back and forth between their analysis and the data.[234] The reason for this is that increased knowledge can change how the sources can be interpreted. By going back and forth between the analysis and the sources, any new information and understanding can be included in the analysis.[235]

It is not possible to be entirely objective in historical research, but the aim is towards finding explanations that have significant supporting evidence, and which is therefore the most likely to be true.[236] It is for this reason that the present research uses data from several different sources and not only from the firms' archives; several sources are used as evidence to strengthen the argument. For similar reasons, context is always important in historical methods, and "[…] a sense of the whole must always inform

[233] Carr, E. 2001: 301-302.
[234] Lipartito, K. 2013. Historical Sources and Data. In: Bucheli, M. & Wadhwani, R. D. (eds.) *Organizations in time: History, theory, methods*. Oxford University Press: 287-288.
[235] Kobrak, C. & Schneider, A. 2011.
[236] Munslow, A. 2003. *The new history.* Pearson Education.

our understanding of the past".[237] Context-setting helps to increase understanding of the information found in the sources. Buckley argued that, "[…] proper acknowledgement of context is vital in understanding and theorising internationalisation".[238] A separate chapter on the Norwegian context is included in this research, together with context for the three firms and the countries they invested in. This contributes to finding the explanations that have the most supporting evidence. It also facilitates a more in-depth understanding of the investment options and decisions that were available to the three firms.

Several methodological approaches are used within business history, and Decker, Kipping and Wadhwani have argued for plurality in historical research.[239] However, some approaches are more common. For example, historians often start with a research question and build the work around the analysis of the sources. What caused the events, and what were the outcomes of decisions and events, are central concerns for most researchers who use historical methods. The aim of historical research is typically not to distinguish between independent and dependent variables, but to analyse and describe their interdependence and connections over time.[240] Thus, historical research does not necessarily start with a hypothesis to be tested; rather, the aim is often to account for a specific instance or phenomenon under investigation.[241] Research on a combination of changing context over time, complexity, contingencies, as well as causality is common in the historical field.[242] These are areas where historical methods often differ from those of social science, and because historians often do not make their methodology and theory choices explicit, understanding by social scientists is often inhibited.[243] Another area where historical and social science methods differ is in regard to what is considered a primary source. In historical research, data created at

[237] Tosh, J. & Lang, S. 2006. *The pursuit of history*: Aims, methods, and new directions in the study of modern history, Pearson Education: 36
[238] Buckley, P. J. 2016.
[239] Decker, S., Kipping, M., & Wadhwani, R. D. 2015.
[240] Jones, G. & Khanna, T. 2006. Bringing history (back) into international business. *Journal of International Business Studies*, 37**,** 453-468.
[241] Decker, S., Kipping, M., & Wadhwani, R. D. 2015.
[242] Andrews, T., & Burke, F. 2007. What does it mean to think historically? *Perspectives on history*, 45(1), 32-35.
[243] Perchard, A., MacKenzie, N. G., Decker, S., & Favero, G. 2017. Clio in the business school: Historical approaches in strategy, international business and entrepreneurship. *Business History*, 1-24.

the time the researcher is enquiring about is considered a primary source. Secondary sources are defined as data created retrospectively.[244] Primary data can be everything from documents to oral history, moving pictures, objects, and images. A historian's primary data is therefore not created by the researcher, but by someone else. The exception to this is oral history, which is co-created by the interviewer and interviewee(s).

Historical methods can be both quantitative and qualitative in approach, but the latter is more common. In business history too, with the exception of economic history, the selection of one or a few cases is more common practice than the use of a larger sample.[245] The case selection in the present research consists of three companies, all of whom invested abroad during the 1960s and 1970s. Thus, this research follows the common approach of studying a few cases instead of a larger sample. Case studies provide rich data and can be useful for both testing and generating theories. They can also offer deeper insight into complicated issues than can be achieved through quantitative research.[246] This is the case for the present research, which presents rich data in regard to the firms' background and their investments abroad. This offers a deeper insight into how and why the firms invested abroad, and how they chose to manage the risks involved.

The three firms' investments and management of risks are compared between each other and to modern theories on risk management in FDIs. Research on Norwegian FDI and firms that could be included was conducted in advance of the selection, as well as research on available archives and data material for potential firms. The included firms were selected strategically, based on issues that were relevant for the object of study.[247] The three firms were selected for this research for a variety of reasons, including their Norwegian background, the available data material for each of them and because they had their first investments abroad in the late 1960s and early

[244] Lipartito, K. 2013. Historical Sources and Data. *In:* Bucheli, M. & Wadhwani, R. D. (eds.) *Organizations in time: History, theory, methods.* Oxford University Press.
[245] Yates, J. 2013.
[246] Patton, E., & Appelbaum, S. H. 2003. The case for case studies in management research. *Management Research News*, *26*(5), 60-71.
[247] Ibid.

1970s. They were also selected due to their differences in investment locations. The three companies were thus selected because they were suitable to illuminate and offer insights, as promoted in case study selection by Eisenhard and Graebner.[248] The overall idea when comparing cases is to first become familiar with each single case. This ensures familiarity with each case and its patterns, which in turn will accelerate cross-case comparisons.[249] This is done in this research, where each case is presented separately, before the investments and risk management strategies are compared between the three firms. The comparison of the three firms primarily focuses on their similar Norwegian context and the similarities and differences in investment decisions, risk perspectives, selection of investment locations and risk management strategies. Comparing three firms is done because the findings then will be grounded in varied empirical evidence, which enables broader exploration of the research questions.[250]

### 3.1.1 Archival research

One of the most commonly used sources of primary data in historical research is archive material. Data that was created at the time the researcher is enquiring about is defined as a primary source, and, as discussed above, this type of data is usually prioritised in historical research because it is not based on analyses by other researchers with independent research agendas.[251] Archival data from business archives can contribute valuable information, because the documents are often created for the purpose of running the company, rather than deliberately created to impact policy, regulators, or researchers. However, multiple researchers can interpret the same archival material differently.[252]

An archive consists of material that has been collected, often to preserve and retain it for future use or reference.[253] In the context of a firm, archives are also kept for reasons

[248] Eisenhardt, K., & Graebner, M. 2007. Theory Building from Cases: Opportunities and Challenges. The Academy of Management Journal, 50(1), 25-32.
[249] Eisenhardt, K. M. 1989. Building theories from case study research. *Academy of management review*, *14*(4), 532-550.
[250] Eisenhardt, K., & Graebner, M. 2007.
[251] Yates, J. 2013: 276.
[252] Kobrak, C. & Schneider, A. 2011.
[253] Decker, S. 2013.

such as marketing purposes. Therefore, an archive will have already been through a selection process, either by the firm or by the archivists, or both, before it becomes data material for a researcher. Specific cultural, political, and socioeconomic pressures influence how archives come into being, and what is kept within them. Multiple actors, such as managers, archivists, volunteers, and newsletter writers also influence how archives are constructed and presented.[254] As a result, archival research is often unpredictable. Different companies will choose to keep different material, and will organise archival material according to different systems. This will influence the researcher and have an impact on what can be found, and how the material can be understood. This is one of the factors that contributes to what Decker defined as the "silence of the archives".[255] One example of this is company magazines, which can be interpreted as reflective of corporate identity or of public image, depending on what the researcher is looking for.[256] Triangulation of sources, through use of several archives or sources of information, helps to overcome the issue of the "silence of the archives". Triangulation of sources also helps to fill the gaps in archival material, and to identify an archive bias.[257]

A major issue in historical research in relation to archive material is finding and gaining access to appropriate archives. This is particularly the case for business history research in which privately held corporate archives are used. In these types of archives, the firm itself decides what to keep and whom to grant access to.[258] Governments and universities also sometimes hold business archives, for various reasons. This was the case for the Dyno archives, as the national archives in Norway took over the collection in 2005. The archives for Elkem are also stored in a government-owned archive facility, but the company maintains the right to grant access. Historical research is influenced by how accessible archives are to the researcher. This can have implications for both the type of research that can be conducted, and the interpretations the historian

[254] Coller, K. E., Helms Mills, J., & Mills, A. J. 2016. The British Airways Heritage Collection: an ethnographic 'history'. *Business History*, 58(4), 547-570.
[255] Ibid.
[256] Esbester, M. 2008. Organizing work: Company magazines and the discipline of safety. *Management & Organizational History*, 3(3-4), 217-237.
[257] Decker, S. 2013.
[258] Ibid.

will be able to make.[259] Several issues often arise when a researcher is seeking to locate and gain access to relevant archives. One of the main issues with archival research is that the most relevant archives are not always kept. When firms move, change office, close down, or are acquired by other firms, their archival material is often disposed of.[260] In addition, accidents such as fire or water leakage can also damage or destroy the material. Furthermore, archives held privately by companies are less likely to contain series of records, and less material is usually collected.[261] This, together with the selection process the archives will have already been through when they were created and potentially restricted access means that it can be hard to find suitable archives. Flexibility in historical research is therefore essential.

When archives are located, a further issue that can be encountered is when firms limit the researcher's access to the archives. Firms often want to control the information researchers can gain access to and how this information is used. Consequently, researchers will often gain access only to parts of the business archive, and some companies will demand the right to read the research before it is published. This can restrict the research done in archives. Finding firms that have kept enough material for research, and that will grant access to that material, is often time-consuming and problematic, and sometimes the research aims have to be adjusted to fit the data that the researcher can gain access to. However, gaining access to the preferred or required data is not a problem that is limited to archival and historical research, and there are additional advantages to using archival data. Archive-based research can, for example, grant the researcher access to more and different sources than contemporary researchers typically have access to.[262]

The majority of the data used in this thesis is archival data, and thus flexibility has been important. The firms initially selected for inclusion refused to grant access to their archives, and new firms and new archives had to be located. Two of the firms presented in this research held their own archives, while no company archive has been

[259] Kobrak, C. & Schneider, A. 2011.
[260] Ibid.
[261] Decker, S. 2013.
[262] Jones, G. & Khanna, T. 2006.

kept for the last firm.One of the archives is privately held, while the national archives in Norway currently hold the archives for the other company.The information found in the archives has been supplemented with information from the Norwegian national archive, the British national archives, and relevant private archives. This helped to mitigate some of the previously mentioned issues with archival research. Cooperate magazines, newspapers, and specialised papers are also used to complement the data found in the archives.

### 3.1.2 Oral history

Oral history is a method that relies on people's memories, and has most commonly been used within social history research.[263] Oral history has a long history and is the oldest form of accessing the past. Oral history and memories as a source for research experienced a renaissance in the post-Second World War period, and in particular from the late 1960s. The invention of the portable tape recorder contributed to this increased interest in the oral history research method, although it was primarily driven by changes in historical research, both methodological and political.[264] The primary contribution of oral history is to reveal aspects of the past that cannot be unearthed through documentary sources.[265] Oral history is necessary to be able to conduct historical research on the non-hegemonic social classes. Initially, this related to workers' voices, but more recently, oral history has been used to study, for example, women and ethnic minorities.[266] Oral history interviews tend not to be used by business historians. Perks found that British business historians have conducted interviews, primarily for company histories, but oral history interviews have largely been absent from their research. Perks further found that very few British oral historians have focused their attention on issues such as management, entrepreneurship, and competitiveness in private business.[267]

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[263] Tosh, J. & Lang, S. 2006: 303.
[264] Perks, R. & Thomson, A. 2015. *The oral history reader*, Routledge: 1-3.
[265] Bornat, J. 2001. Reminiscence and oral history: parallel universes or shared endeavour? 1. *Ageing & Society*, 21(2), 219-241.
[266] Portelli, A. 2010. The Death of Luigi Trastulli and Other Stories: Form and Meaning in Oral History, Suny Press.
[267] Perks, R. 2010. The roots of oral history: exploring contrasting attitudes to elite, corporate, and business oral history in Britain and the US. *The Oral History Review*, 37(2), 215-224.

Oral history methods can be used either reconstructive or as an interpretation of memory. The two methods can also be combined. Reconstructive use of oral history has been much criticised, for example for not being general enough, but the most common criticism relates to the reliability of memory. Memories of past events are often shaped by subsequent experiences and other people's memories of the same events.[268] More recently, therefore, oral history has been used to interpret memories, rather than, or in addition to, as a reconstruction of the past. Oral history is therefore also concerned with how memories and events are remembered and experienced.[269] The subjectivity of memories can thereby provide clues about the relationship between the past and the present, and about the meaning of historical experiences. It is therefore argued by several historians that the subjectivity of memory is one of the greatest strengths of oral history research.[270] Conducting oral history turns the historian into an interviewer who interacts with the past.[271] Oral history interviews typically take a subject-centred approach, where the interviewee retains much of the control, compared to social science interviews who often utilise questionnaire.[272] Oral history requires, just like any other historical data, critical evaluation and context.[273] Oral history will often involve interviewing older participants. In general, there are no special methodological issues associated with interviewing older respondents that do not apply to interviewing in general. Older individuals may also have fewer social reasons to misdescribe their experiences in the past, and their involvement with them.[274]

By using oral history methods, the researcher is able to add information to the historical record.[275] In regard to this research, oral history has helped shed lights on issues that were not necessarily written down in minutes of meeting or reports. Examples of this include discussions on corruption and briberies and the relationship

[268] Tosh, J. & Lang, S. 2006: 307.
[269] Thompson, P. 2000. *Voice of the past: Oral history,* Oxford University Press: 162.
[270] Perks, R. & Thomson, A. 2015: 3-4.
[271] Bornat, J. 1989. Oral History as a Social Movement: Reminiscence and Older People. *Oral History*, 17(2), 16-24.
[272] Green, A., & Troup, K. (Eds.). 1999. The houses of history: A critical reader in twentieth-century history and theory. Manchester University Press: 235-236.
[273] Tosh, J. & Lang, S. 2006: 322.
[274] Thompson, P. 2000: 137.
[275] Bornat, J. 2001.

the managers developed to the political leadership in some countries. The oral history interviews have also been important for capturing variations in risk perception between the three firms. The oral history interviews are mainly used to complement the data collected from the archives and to gain a deeper insight into the firms' internationalisation decisions and risk management. Three interviews were conducted for this research, one for each of the firms. Two of the interviews were with former managing directors of two of the firms, while the third interview was with the two managers who had been most involved in the FDI and the investment decision. The interviewee subjects for all companies were those individuals who were most involved in the FDI decision and thus those who were most likely to remember detailed information, since memory depends on interest.[276] The interviews were all semi-structured. The researcher asked some relevant questions, but also allowed the interviewees to share what they thought was relevant and important. The interviewees signed consent forms and agreed to be audio-recorded. All three interviews were conducted in Norwegian and then transcribed in Norwegian. The participants are not anonymised, as anonymisation without losing substantial parts of the content would have been impossible due to the role the interview subjects played in the firm and the knowledge that only they possess.

## 3.2 Contributions and weaknesses of historical methods

Academic research has highlighted several areas where "history matters" for business research, and areas where historical methods can provide useful contributions. Time series variation,[277] identifying processes and relationship over time[278], illuminate path-dependency, understanding of choices by actors and developments in the long term[279] are just a few of the areas that have been emphasised. Historical research contextualises decision-making and highlights the importance of what came before an

[276] Thompson, P. 2000: 131.
[277] Buckley, P. J. 2009. Business history and international business. *Business History,* 51**,** 307-333.
[278] Bucheli, M. & Wadhwani, R. D. 2013. *Organizations in Time: History, Theory, Methods*, Oxford University Press.
[279] Jones, G. & Khanna, T. 2006.

action was taken or a decision was made.[280] Historical research is useful for revealing sequences and processes, and for uncovering complex developments related to the issue being studied, through rich and detailed reconstruction.[281] Looking at events from a historical perspective can create new insights, which in turn can create new perspectives.[282] Regarding risk, internationalisation, and FDI, historical methods can contribute in several of the areas mentioned. This section will discuss the advantages and weaknesses historical methods.

One of the main contributions of historical methods is the sources this method provides access to, which can provide a wealth of quantitative and qualitative data. Historical methods can encourage consideration of events and circumstances that might otherwise go underappreciated and under-researched.[283] Jones and Khanna argue that historical variation can provide the same information as contemporary cross-sectional research, but, furthermore, historical methods allow researchers to access information that contemporary sources cannot.[284] Jones and Khanna further argue that historical methods can illuminate the same issues as many types of cross-sectional research, but with the addition of sources that other methods might not have gained access to. One example of the limitation of information imposed on contemporary approaches is the access restrictions imposed by several archives. The British government archives are, for example, restricted for 30 years after they are created.[285] However, as historical research often examines issues that pre-date the time restriction imposed on several archives, it is possible to gain access to archival information that contemporary research would be prohibited from accessing. Contemporary research methods might also experience restrictions concerning information that firms considered sensitive, such as risk management and internationalisation.

[280] Wadhwani, R. D. & Bucheli, M. 2014. The future of the past in management and organizational studies. *Organizations in time: History, theory, methods*, 4.
[281] Decker, S., Kipping, M., & Wadhwani, R. D. 2015.
[282] Maclean, M., Harvey, C., & Clegg, S. R. 2017. Organization Theory in Business and Management History: Present Status and Future Prospects. *Business History Review, 91(3)*, 457-481.
[283] Maclean, M., Harvey, C., & Clegg, S. R. 2016. Conceptualizing historical organization studies. *Academy of Management Review*, 41(4), 609-632.
[284] Wadhwani, R. D. & Bucheli, M. 2014.
[285] Tosh, J. & Lang, S. 2006: 113.

Historical methods can contribute to business research in particular by providing access to data that, because it is not relevant to the operations of the businesses today, the firm might not otherwise grant access to. For example, the researcher was granted access to Elkem's historical archives because the company is no longer involved with the investment in England. By contrast, Norsk Hydro denied access to its archives because it considered the information they contained to be relevant to its current business operations. By using historical research methods, the researcher was able to gain access to information on the firms' internationalisation, which otherwise might have been difficult or impossible to access. Buckley et al. found that empirical FDI studies that rely on panel or survey data often exclude information on discarded options.[286] However, the use of historical methods in this research yielded information on investments that the firms had discarded.

Another advantage of using historical sources and conducting historical research is that the need for anonymity might be obviated. This is again because the events are deemed not relevant to the firm in the present day.[287] When gaining access to and writing about modern firms, anonymising the firms is often a necessity.[288] Using material from a firm or archive that does not have to be anonymised makes it possible for other researchers to validate the research and the conclusions drawn, as they will be able to find the same material themselves through thorough referencing. It also makes it possible for the researcher to better position the company within its context, since valuable and relevant information might otherwise have had to be anonymised.[289] In this research, if any of the firms had needed to be anonymised, a great deal of information and detail would have been lost, as the firms were unique in their internationalisation. They were, for example, the first Norwegian firms to invest in certain countries and industries. The same is true for oral history interviews. In this regard, oral history might also contribute to otherwise lost information.[290] In this

[286] Buckley, P. J., Devinney, T. M. & Louviere, J. J. 2007. Do managers behave the way theory suggests? A choice-theoretic examination of foreign direct investment location decision-making. *Journal of international business studies,* 38**,** 1069-1094.
[287] Maclean, M., Harvey, C., & Clegg, S. R. 2016.
[288] Adorisio, A. L. M. & Mutch, A. 2013. In search of historical methods. *Management & Organizational History,* 8**,** 105-110.
[289] Maclean, M., Harvey, C., & Clegg, S. R. 2016.
[290] Thompson, P. 2000: 137.

research, the former manager of Norcem talked about the company's use of bribery in its investments. Other research methods might not have yielded this information, which might be considered sensitive by a firm.

One important contribution of the historical research method is its ability to contextualise, which is essential to historical research. Organisations are not standalone entities; they are shaped by their surroundings.[291] Historical research contextualises the decision-making in these entities and highlights the importance of what came before an action was taken or a decision was made.[292] A firm's previous experiences and background will have an impact on how it invests abroad, and how it views the risk involved with the investment. Likewise, the political and financial environment of both the home nation and the nation it invests in will have an impact. Contextualisation can therefore provide a deeper understanding of the firm and its decisions. Understanding context is also essential for understanding the options available to firms. History can be used to uncover and understand the essence of a firm and its strategic choices, and it can also be used to expose the long-term effects prompted by specific decisions. Historical methods can explain the decisions and the behaviour of firms over a longer timeframe and within a broader framework than many other research methods can.[293] In relation to internationalisation, history can shed light on the managerial process by showing how internationalisation is the outcome of a set of decisions, which are all dependent on context, previous decisions, alternative considerations, and time and space.[294] The options available to a firm are dependent on the context the decision is taken within; in this research, contextualisation can help explain the three firms' risk-management decisions.

The world is a complex place in which almost everything is interrelated in some way. Historical research can help to illuminate the complexity of the world and show multiple changing processes.[295] Historical methods can therefore contribute to

[291] Maclean, M., Harvey, C., & Clegg, S. R. 2016.
[292] Bucheli, M. & Wadhwani, R. D. 2013. *Organizations in Time: History, Theory, Methods*, Oxford University Press: 9.
[293] Buckley, P. J. 2009.
[294] Buckley, P. J. 2016.
[295] Jones, G. & Khanna, T. 2006.

explaining how almost everything is connected, and how decisions and connections depend on each other. In regard to this study, the firms' previous experiences of export and internationalisation affected their later decisions. An outcome or an opportunity depends on a number of prior conditions, which in turn depended on a number of prior conditions; historical research helps to highlight and understand this process. Historical research also shows that there is no such thing as a pre-determined outcome of any event. The historical method enables researchers to look past the deterministic model.[296] This is important when researching FDI and risk management, as historical methods can reveal how the firms decisions were options based on opportunities, previous experiences, and the context within which the decisions were taken. Features, decisions, and opportunities that could have been considered as unavoidable can, through historical research, be seen as the outcome of earlier decisions, which again in turn were based on previous decisions.[297] Those decisions could have been different, rather than pre-determined and unavoidable.

The relationship between history and theory has been much discussed, and the historical method has been criticised for its lack of, or insufficiently rigorous engagement with theory.[298] The historian often starts with a historical phenomenon rather than a theory.[299] They let the data inform the theory, rather than using the data to test a theory-based hypothesis, and theories have often been applied in a historical way, rather in a social-scientific way. Decker argues that the criticism of history as lacking in theories is misplaced, because the issue is rather the lack of methodological explanations.[300] Buckley, however, argues that history can likely gain from applying theories and concepts from business studies, and that this would make history a "powerful generator of theory".[301] Historical methods can provide sources for international business theory, can be used to test theories, and can help to develop existing theories. They can even create new theories.[302] Historical methods can

[296] Perchard, A., MacKenzie, N. G., Decker, S., & Favero, G. 2017.
[297] Üsdiken, B. & Kieser, A. 2004. Introduction: History in organisation studies. *Business History*, 46**,** 321-330.
[298] Maclean, M., Harvey, C., & Clegg, S. R. 2017 and Maclean, M., Harvey, C., & Clegg, S. R. 2016.
[299] Yates, J. 2013: 268.
[300] Decker, S. 2013.
[301] Buckley, P. J. 2009.
[302] Ibid.

contribute to theories by highlighting their ahistorical approach and through greater historical contextualisation.[303]

Kipping and Üsdiken identify that history has been used to test and develop theories since the 1980s. They distinguish between "history to theory" and "history in theory" as two different approaches combining history and theory. The first, history to theory, includes approaches where history serves to develop, modify, or test theories. The theories used in this approach are considered timeless. History in theory is defined as approaches where the past is used as a part of the theoretical model itself. Examples of this include theories of path dependence and imprinting. Kipping and Üsdiken also argued for the existence of a third approach they called "historical cognizance". This third approach is situated between history to theory and history in theory, and takes history 'more seriously'. By this, they meant that the researcher was conscious that their results or theoretical models were influenced by historical context.[304] Maclean et al. also argued for an approach where history and theory are integrated, and labelled this "integrationist".[305]

In the present research, theories are used to explain the firms' approach to risk management in regard to their FDIs. Historical methods are also used to test whether the modern theories of risk management are relevant for earlier internationalisation. This research is grounded in the 'history to theory' approach of Kipping and Üsdiken, because history is used to develop and test theories on risk management in relation to FDI. However, this research also takes historical context and its influence into consideration. It can, therefore, be considered to use the 'historical cognizance' or 'integrationist' approach, where history and theory are integrated.

[303] Booth, C. & Rowlinson, M. 2006.
[304] Kipping, M. & Üsdiken, B. 2014. History in organization and management theory: More than meets the eye. *The Academy of Management Annals*, 8.1: 535-588.
[305] Maclean, M., Harvey, C., & Clegg, S. R. 2016.

## 3.3 Historical methods in this research

This research uses historical methods to investigate internationalisation and risk management. Casson and Da Silva Lopes argued that business history has particular strengths in analysing investment risks, since these types of problems are often well-documented in relevant sources, such as company archives, press reports, trade journals, and official documents.[306] Typically, the study of international business requires a proper investigation of context, which is an important element of historical research. Historical methods can therefore provide useful contributions to research on internationalisation and FDI decisions. Context is included in this research through a dedicated chapter on the firms' Norwegian context, through sections on the background of each of the firms included in this research, and on relevant background for the countries they invested in. This helps to contextualise the FDIs and the risk-management decisions made by the three firms.

The data collected for this research consists mainly of archive material and company magazines from the three firms. This is supplemented with oral history interviews, government archives, government records, and newspaper articles written at the time of the investments. Some of the firms have books written about them or their industries; those books are used as secondary data to complement the primary data collected. The next sections will present and discuss the primary data used for the three firms.

### 3.3.1 Business archives

The business archives for Dyno Industrier (Norsk Sprængstofindustri, Grubernes Sprængstoffabriker and Dyno) is kept at the national archives (Riksarkivet) in Oslo, Norway. The collection consists of archives from Norsk Sprængstofindustri and Grubernes Sprængstoffabriker before they merged, and from Dyno after the merger. The archive consists primarily of information used for internal purposes within the organisation. According to Decker, "The most comprehensive corporate record

[306] Casson, M. & Da Silva Lopes, T. 2013. Foreign direct investment in high-risk environments: an historical perspective. *Business History*, *55*(3), 375-404.

collections tend to belong to large public firms with a long history […]. When companies of this kind fail, it can be difficult to preserve these files because collections tend to be very large".[307] This description fits the archives concerning Dyno. The firm has a long history and thus a large archive has been collected. The firm used to own the archive, but when Dyno was sold to a foreign investor, the new owners wanted to discard the archive. The National Archives in Norway rescued the archive, but the archive key was lost in the process. Thus, the archive is not properly catalogued and, due to its large size, spanning from the first explosives-production industry in Norway until Dyno was sold in 2005, it was nearly impossible to ensure that all of the information relevant to this research was located. Therefore, there might be archive material concerning the risk-management and internationalisation decisions that was not uncovered. However, the researcher identified the boxes bearing the names and years that emerged as the most relevant and searched all of the archival material they contained. This was possible because the archive had at one point been sorted, and the boxes labelled with content title and dates. The researcher also visited the archive on several occasions, so that the knowledge gained from reading the data that had already been collected could be used to search for other relevant data. It is therefore the belief of the researcher that most of the relevant information was located.

The researcher also looked through issues of Norsk Sprængstofindustri's (NSI) company magazine, *Spinas Nytt*, from around the time of its first FDI. A company magazine is a publication produced by a firm and is usually intended for circulation amongst employees.[308] The whole collection of Norsk Sprængstofindustri's company magazine is kept at the Norwegian University of Science and Technology. The researcher also received the feasibility study from the firm that carried out the research for Dyno's investment in Singapore. An interview was also conducted with Ragnar Halvorsen, who was Finance Director from 1961, Vice-Director from 1971, and Managing Director between 1981 and 1987 in NSI and Dyno. Halvorsen published a book *Dyno Industrier: fra nasjonal til internasjonal bedrift* in 2000 about Dyno's

[307] Decker, S. 2013.
[308] Esbester, M. 2008.

history and its internationalisation process.[309] This book is used as a secondary data source.

The main Christiania Spigerverk/Elkem-Spigerverket collection is located in Rjukan, Norway. This is a privately held archive, and the researcher had to obtain permission from Elkem to view the documents it contains. The archive consists of materials directly related to Spigerverket and Elkem's investment in the mini steel mill in England. The main documents found in this archive were documents directly related to the building process, letters sent and received, and different evaluations related to the building and running of the mini steel mill. The only minutes of a meeting found were from a meeting concerning the expansion of investments in England in 1979. Lundgaard, one of the interview subjects, provided these minutes, in addition to other relevant documents about the steel industry and the investments in England. Christiania Spigerverk's archive from earlier in the investment has been only partially kept, and some of the material from the earlier decision-making has been lost. The researcher looked through Christiania Spigerverk's archives, but they did not yield much relevant information. The interview for Elkem-Spigerverket was with Erik Lundgaard and Karl Ismar, both of whom were heavily involved in the investment in England, and in Christiania Spigerverk and Elkem's steel divisions. In addition, archive material from the National Archives in Kew, London, relating to the British government's decision to deny the Industrial Development Certificate was also examined. The House of Commons discussion regarding the steel industry in England is also used to supplement the information found other places. The digital versions of the magazine *Steel Times* is also used as a primary source. This magazine focused on the British steel industry, and Elkem-Spigerverket's investment is mentioned several times. Steel Times is digitalised and available online. The book *Skaperkraft: Elkem gjennom 100 år: 1904-2004* by Sogner[310] is used as secondary data on Elkem.

The data for Norcem is mostly drawn from the company magazine, *Nytt i Norcem,* which was published from 1968 when the cement producers merged to become

[309] Halvorsen, R. 2000. Dyno industrier: fra nasjonal til internasjonal bedrift, DYNO
[310] Sogner, K. 2003. Skaperkraft: Elkem gjennom 100 år: 1904-2004, Messel forl.

Norcem. This magazine was sent out to all the workers four times a year and included everything from news related to the firm, to reportages from the countries Norcem had invested in. The researcher was also able to obtain one of the yearly reports from Christiania Portland Cementfabrik, from the year before the merger. No other archive material from that period has been kept, and has therefore not been accessible. As a result, the main material relating to Norcem used in this thesis is documents that were created for public purposes, mainly for the employees. The researcher was not able to access minutes of meetings where investment decisions and risk were discussed. However, company magazines play a valuable role in showing what was important for the business at the time, and how the business wanted to present itself to its workers.[311] Corporate identity, culture, authority, and power can all be observed within company magazines.[312] An interview was conducted with Gerhard Heiberg, who began working at Norcem in 1972 and became the Managing Director in 1973. He was given the role of Managing Director because Norcem wanted to become a more international firm, and he had the experience Norcem thought that this would require. Heiberg was therefore central to the internationalisation process and the risk-management decisions made within Norcem, and thus is very relevant for the topic of this thesis. In the case of Norcem's investment in Ghana, the World Bank's digital archives have also been used. The books *Sement i Norge 100 år* by Gartmann[313] and *Dalens egne år 1916-1968,* by Fasting and Gartmann[314] are used as secondary source on the firm.

### 3.3.2 Government records and archives

Archives created by various Norwegian governmental institutions have been used to triangulate sources. This has been especially important in the case of Norcem, where no private firm archive was kept. The archive of the Guarantee Institute for Export Credit (GIEK) has been used in relation to Norcem and Dyno's application for guarantees. The archive of the Norwegian Agency for Development Cooperation (Norad) has been used for the same purpose. The two archives consist of material

[311] Heller, M. 2008. Company magazines 1880—1940: An overview. *Management & Organizational History*. Vol 3, Issue 3-4, pp. 179 – 196.
[312] Esbester, M. 2008.
[313] Gartmann, F. 1990. *Sement i Norge 100 år,* Oslo, Norcem.
[314] Fasting, K. & Gartmann, F. 1980. *Dalens egne år 1916-1968*, Brevik, Fabrikken.

created for internal purposes, such as minutes of meetings and letters sent to and from relevant firms. The archives also include letters and faxes sent by Norcem and Dyno to GIEK. Besides this, the archives of the Ministry of Trade - the Department for Foreign Trade (Handelsdepartementet –Avdeling for utenrikshandel) have also been used. This archive has restricted access, and it was necessary to apply to view the documents it contains. Some other relevant public government archives have also been used where appropriate. However, there is not much government-created material that is relevant to the firms' internationalisation. The reason for this is because the three firms included in this research invested abroad before FDIs became a major interest for the government, and FDIs at that time were typically not much discussed. Most of the government archives used in this research are open and can be accessed at the Riksarkivet in Oslo. However, some of the material is restricted, and thus permission was required before it could be viewed. Included in this permission is a confidentiality clause, which requires that names and private information are excluded from this research.

Some of the government-created material used in this thesis is digitalised, mainly NOUs (Norsk Offentlig Utredning). NOUs are official reports created by a government-established committee for an external, public purpose. NOUs were usually created and published when the government wanted more information on a decision they were considering. Government decisions have also been digitalised, and are used throughout the thesis. Included in these are parliamentary propositions and parliamentary reports. As was the case in regard to the government archives, FDI was not a common topic during the 1960s and the 1970s, in the NOUs or the parliamentary reports. Export was a far more prioritised area.

One of the issues with government documents is the various terms and definitions that have been used by the government to describe FDIs in some way or another. Different terms include foreign direct investments, utenlandsinvesteringer, direkte utenlandsinvesteringer, datterselskaper i utlandet, and internasjonalisering. As a result, finding the right material was a complicated process. There has also been a much greater focus on the export of Norwegian goods than there has been on any kind of

investments abroad, and this is therefore discussed to a much greater extent in the governmental sources. Although the two practices are closely linked, they are not the same.

### 3.3.3 Private archives

The National Archives in Norway (Riksarkivet) also keep some private archives, including those for Norges Industriforbund (the Federation of Norwegian Industries). This is a private employers' organisation, which contain folders related to foreign investments. Permission had to be granted before this archived could be viewed, and permission was attached to a confidentiality clause requiring that names and private information be excluded from any research.

The digital archives of one of the largest newspapers in Norway, Aftenposten, was also searched in order to find what had been written about the investments at the time. This newspaper focuses on business and business relations; their archive is digitalised and can be found at Aftenposten.no.

**Table 1:** Summary of archive material

| | **Dyno** | **Norcem** | **Elkem-Spigerverket** |
|---|---|---|---|
| **Company archives** | NSI, Grubernes and Dyno's historical archives. | No relevant company archive. | Elkem's historical archive.<br>Some, but very little from Christiania Spigerverket's archives. |
| **Company magazines** | Spinas Nytt, company magazine for NSI. | Nytt i Norcem (from 1968). | No company magazine. |
| **Aftenposten (newspaper)** | Some articles about the investments in the newspaper. | Some articles about the investments in the newspaper. | Some articles about the investments in the newspaper. |
| **GIEK and Norad** | Relevant for the investment in Singapore. | Relevant for the investments in Ghana and Ras Al Kamiah. | Not relevant. |
| **Governmental records and NOUs** | Not relevant. | Parliamentary discussions on the cement industry. | NOU: The future of the steel industry. |
| **Other archives and sources** | Feasibility study for Singapore.<br>Singaporean newspapers. | Governmental records on Ghana.<br>World Bank records on Ghana. | Hansards archive, online.<br>Steel Times newspaper, found online.<br>National Archive London. |

## 3.4 Summary and conclusions

The method used in this research is the historical method, and the study can be defined as a business history. This research is primarily based on archival data, which is supplemented with oral history interviews. The information found in the archives is evaluated and compared with context, other archives, and oral history interviews in order to triangulate sources and help overcome the 'silence of the archives' issue.

As this chapter has shown, there are many areas to which historical methods can contribute in business research. Historical research can grant access to sources that other methods are not able to, and thus can enable the collection of more and different types of data; it can highlight development; and it can contribute to context-setting. Historical methods can also make a valuable contribution to the testing and

development of theories. Several of these contributions are relevant to this research. For example, internationalisation and risk management is set within a context, which helps to explain the various options available to the three firms. Historical research has been criticised for its minimal or non-use of theory. This research uses theory to shed light on risk-management strategies. Using historical methods has helped gain access to sources and information that would otherwise not have been available, as it would be considered relevant and private to the firm. This is one of the greatest advantages of using historical methods for this research.

The data used in this research is primarily drawn from the business's own archives. The Dyno archives are kept at Riksarkivet, and Elkem's are held in Rjukan. Norcem has not kept an archive, so the data for this firm is taken from other sources. The business archives are supplemented with oral history interviews with former managers of all three firms. The data is further supplemented with company magazines, government archives, private archives, and newspapers. This helps to triangulate the data and to find the explanations that have the strongest support.

# 4.0 Norwegian Context

The three firms included in this thesis were all Norwegian-based firms founded, headquartered, and operated out of Norway, owned and controlled by Norwegian interests. This means that the Norwegian socio-historical context was important for the development, internationalisation, and management decisions of all three firms. This chapter will look at the relevant Norwegian background, development, and context for the internationalisation of the three firms. By doing so, the chapter will provide context and background for the three firms' investments, and help contextualise the options that were available to the decision-makers. The chapter will, through this, also provide insight into business-government relations. The chapter will locate the firms within the broader Norwegian and global context of the 1960s and 1970s.

A large section of the chapter will concentrate on internationalisation trends in Norwegian firms and the Norwegian government's view on export and FDI. This will explain how FDI by Norwegian firms developed, and present the political view in Norway on both FDI and export. Norwegian policies toward export will be the primary focus of this section, due to their importance in Norway and to the close links between FDIs and export. A central part of the chapter is the Guarantee Institute for Export Credits (GIEK). The Institute provided guarantees for the export of Norwegian goods in general, and for export to and investments in developing countries specifically. Those guarantees were used to insure Norwegian firms against certain risks related to export to and investments in developing countries.

## 4.1 Background: Norway's history

Norway is a nation with a long history, but with a relatively short history as an independent state. Parts of the country were first united in the 870s, while the rest of the country was included in stages during the 1000s. The kingdoms of Norway, Sweden, and Denmark established the Kalmar Union in 1397; Sweden withdrew from the union in 1523, and the kingdoms of Norway and Denmark continued with a personal union, with Denmark as the strongest power. This union eventually developed

into an integrated state with Denmark as the ruling power. This long-lasting Danish rule over Norway, which persisted until 1814, had a substantial impact on later developments in Norway, both political and cultural.[315]

The Norwegian constitution was written in 1814 when Norway first sought to gain independence from Denmark. This constitution is, with some modification, still in use in Norway today. Norway was unsuccessful in achieving independence in 1814 and was instead forced by the major European powers to enter into a union with Sweden, which lasted until 1905.[316] The struggle for independence during the early 1900s strengthened national feelings in Norway.[317] This increased nationalistic focus had implications for the politics implemented over the next decades, particularly in relation to ownership rights of waterfalls. The female participation in the struggle for independence contributed to the granting of voting rights to women in 1913, making Norway one of the first countries to do so. Universal suffrage for men had only been granted 15 years earlier, in 1898.[318]

Following a referendum in 1905, Norway chose to continue as a constitutional monarchy. The Danish Prince Carl became the new King of Norway, as Haakon VII. Prince Carl was offered the position as King of Norway by the newly elected Norwegian government. This was primarily due to his close relationship to the British Royal family - Prince Carl was married to Maud, Princess of Great Britain and Ireland. Norway hoped to strengthen ties with Great Britain through this relationship, both immediately and into the future.[319]

[315] Mykland, K. 1986. Firehundreaarig natten. *Historisk Tidsskrift,* 15.
[316] Riste, O. 2001. *Norway's foreign relations: a history*, Universitetsforlaget Oslo: 43-46.
[317] Thue, L. 2008. Norway: A resource-based and democratic capitalism. In: Fellman, S., Iversen, M. J., Sjögren, H. & Thue, L. (eds.) *Creating Nordic capitalism: The business history of a competitive periphery*: 425.
[318] Nerbøvik, J. 1999. Samlagets Norsk historie 800-2000: eit bondesamfunn i oppbrot. Norsk historie 1860-1914, Det Norske Samlaget.
[319] Maseng, E. O. 2005. Utsikt over de nord-europeiske staters utenrikspolitikk i de siste århundrer, JG Tanum. (Vol 3).

### 4.1.1 Financial and political situation from independence to 1960

Since gaining independence in 1905, Norway has relied on the exploitation of natural resources, and most of the period between 1905 until the 1970s was characterised by a high degree of export and financial growth. The development of hydroelectricity, and regulations related to this, was essential for Norwegian development in this period.

The early 1900s were characterised by a financial crisis that started in Norway's capital city, which led to high emigration. Approximately 200,000 Norwegians emigrated between 1900 and 1910, primarily to the USA. A prolonged period of financial growth, where especially export grew, characterised the remainder of the early 1900s. Norwegian timber was one of the leading export products in Norway prior to 1905, while the majority of other Norwegian-produced products were consumed only by the domestic market. However, export of canned herring and products based on the use of electricity, such as paper and pulp products, metal products, and chemical products, grew in the years following independence.[320]

The Norwegian economy has been, and still is, largely based on the exploitation of natural resources; petroleum, fish, forest, minerals, and hydropower have all played a role in national development. At the time of Norway's independence, hydroelectricity was one of the most important resources in Norway. There is no doubt that waterfalls and natural resources have played an essential role in the shaping of the business environment in Norway, right up to the present day.[321] In 2004, 99 per cent of all electricity produced in Norway was hydro-based and Norway was the world's sixth largest producer of hydroelectricity.[322] Regulations related to ownership rights over waterfalls in Norway were the subject of heated debate in the years following Norway's independence. The dominant issue in the early 1900s was the question of how the waterfalls, a valuable resource for cheap electricity, should be controlled in light of the desire of foreign multinational companies to use and develop this resource.

[320] NOU 1996: 23. *Konkurranse, kompetanse og miljø: næringspolitiske hovedstrategier,* Oslo, Statens forvaltningstjeneste, Seksjon statens trykning.
[321] Thue, L. 2008: 394.
[322] NOU 2004: 26. *Hjemfall,* Oslo, Statens forvaltningstjeneste.

The 'Waterfall law controversy' began shortly after independence.[323] Prior to the dissolution of the Union, anyone had been able to purchase a waterfall in Norway without involving the state; the only limitations on this had been that the purchaser of a property in Norway had to be either a Norwegian or Swedish citizen, if not, they had to be granted a concession by the state. This concession was usually easy to obtain.[324] By 1906, foreign interests, primarily Swedish citizens, owned more than three quarters of the developed waterfalls in Norway. The newly independent Norway came to see this as an issue when both nationalism and inward foreign investments grew.[325] The discussion culminated in 1906 with the parliament in Norway, Stortinget, deciding to prioritise the interests of society at the expense of private interests. A provisional concession law, today known as the Panic Law, was implemented the same year.[326]

In 1909, a new, better planned, stronger, and more permanent concession law was passed.[327] The 'Georgist' movement, named after the American political economist, Henry George, inspired the legislation relating to the use of natural resources in Norway. The guiding principle was that all citizens deserved and should own the values that they created, but that the value supplied by nature ultimately belonged to all humanity.[328] The value of waterfalls and natural resources was determined to belong to the state, and hence the public, rather than to private businesses.[329] The new legislation stated that only the state, the counties, or Norwegian citizens could purchase waterfalls without a concession. To acquire this concession, a company would have to have its headquarters in Norway and have a majority of Norwegian citizens on its board. After a minimum of 60 years and a maximum of 80 years after a concession was granted, the state would, free of charge, take over the waterfall with its pipelines and power plants. This law is known as 'Hjemfallsretten' in Norwegian, meaning the

[323] Ryggvik, H. 2010. The Norwegian Oil Experience: A toolbox for managing resources. *Centre for Technology Innovation and Culture,* University of Oslo.
[324] Andersen, K. G. 2005. Hydros historie 1905-2005. 1, Flaggskip i fremmed eie: Hydro 1905-1945, Pax: 83.
[325] Sandvik, P. T., & Storli, E. 2011. Confronting market power: Norway and international cartels and trusts, 1919–39. *Scandinavian Economic History Review*, 59(3), 232-249.
[326] Faugli, P. E. 2012. *Vann- og energiforvaltning: glimt fra NVEs historie,* Oslo, Norges vassdrags- og energidirektorat.
[327] Ryggvik, H. 2010.
[328] Thue, L. 2008: 425-426.
[329] Ryggvik, H. 2010.

'home-falls-rights'. The law distinguished between privately held and publicly held waterfalls, where the publicly held waterfalls were not subject to the 60-year reversion regulation. The law further stipulated that the state could require the developers of hydroelectricity to use a Norwegian workforce and Norwegian suppliers for the equipment. This part of the law was strengthened in 1927, when a 10 per cent price increase was added to all foreign proposals.[330] Through the concession laws, the Norwegian government aimed to continue the development of the waterfalls through foreign capital and knowledge, while at the same time retaining control of the resources. The 1909 concession law was controversial and the law was passed with a very small margin. A new concession law that gave even greater preference to the public sector was ratified in 1917.[331] Several of the same basic principles of the concession law were implemented in oil regulation, when oil was discovered in Norway in 1969. In 1969 and 1993, the concession laws were amended so that it would be possible, with the agreement of the government, for companies to retain ownership over more extended periods. The aim of this was to encourage more substantial financial investments in waterfall development.[332]

The development of hydroelectricity contributed to increased industrialisation in Norway; this had an immense impact on both economic development and living standards in the nation.[333] Industrialisation spread to all over the country; industries had to be built where waterfalls were located, as transport of electricity was expensive in the earlier parts of the 1900s. This led to the building of larger industrial constructions in small towns, such as Rjukan and Odda.[334] In general, small towns and regional areas have always played a significant role in Norway, which contributed to making local banks and businesses common throughout the country. In the early 1900s Norway thus lacked larger banks that could finance expensive industrial development. This meant that larger industrial businesses, for the most part, were established and funded by foreign investors and banks. This decentralised economic structure is a feature of what has been described as "democratic capitalism", and it is an essential

[330] Ryggvik, H. 2010.
[331] Dugstad, R. 2011. *Chasing Waterfalls*. Master thesis, NTNU.
[332] NOU 2004: 26. *Hjemfall*, Oslo, Statens forvaltningstjeneste.
[333] Ibid.
[334] Nerbøvik, J. 1999: 244-245.

trait of the Norwegian economic structure and development.[335] The Swedish Wallenberg brothers and the French Paribas bank, for example, financed the development of Norsk Hydro.[336] Swedish, together with German, Swiss, and American multinational companies were the most involved in Norwegian industry in this period.[337] The first cement factory in Norway, Det Norske Aktieselskap for Elektrokemisk Industri, and several of the smaller explosives firms that later merged to become Dyno, had also been established through the support of foreign investors. Thus, all the three firms examined in this thesis had a background of being internationally financed, like most other large firms established in Norway at the same time.

Besides hydroelectricity, major industries in Norway have traditionally included fisheries, shipping, and mining, while oil and gas became a significant industry more recently. The mining industry has a long history in Norway and includes iron ore, sulphide ore, pyrite, silver, cobalt, tungsten, molybdenum, chromium, nickel, gold, and thorium. Non-metallurgy mining has included soapstone, building stone, slate, clay, dolomite, graphite, feldspar, quartzite, and coal. The level of thriving of the mining industry in Norway has varied over time; the industry expanded during the Second World War, but several of the mining and metal-related industries came to struggle in the 1960s and 1970s.[338]

The 1920s were a period of slow economic development in Norway. This was closely connected to the strict monetary policy, based on British policies, that Norway implemented in this decade. The slow economic development was also linked to the European recession in the early 1920s, which had an impact on Norway's export. Export had grown to represent a significant share of Norway's income by this time, and the increased import and decreasing export created a trade deficit. Nevertheless, the Norwegian firms that produced for export survived and performed relatively well

[335] Thue, L. 2008.
[336] Andersen, K. G. 2005.
[337] NOU 1996: 23. *Konkurranse, kompetanse og miljø: næringspolitiske hovedstrategier,* Oslo, Statens forvaltningstjeneste, Seksjon statens trykning.
[338] NOU 1984: 8. *Utnyttelse og forvaltning av mineralressurser,* Oslo, Universitetsforlaget: 37-39.

during the 1920s, primarily because foreign investors acquired a majority of the firms that went bankrupt or were struggling during this period.[339]

There was a general scepticism towards large foreign firms and cartels operating in Norway, but the country became one of the most cartelised states in Europe in the interwar period. The anti-trust laws that were passed in the 1920s, together with the concession laws, were the two most important laws regulating how foreign firms and cartels could operate in Norway. The trust regulation against foreign firms in Norway was a lot stricter than in neighbouring countries, and also prioritised Norwegian-based cartels. The permanent trust law that was passed in 1926 permitted cartels, but all private agreements that regulated competition had to be reported to the "trust control" (trustkontrollen).[340] Although the Great Depression in 1929 had an impact on Norway, the economy was once again growing from 1932.

Norway decided to remain neutral during both the First and the Second World Wars. During the First World War, Norway succeeded in their policy of staying neutral because Scandinavian neutrality was in the interest of the great powers. However, this neutrality policy was complicated during the Second World War, amongst other reasons because of the German fear of an alliance between Norway and Britain, the importance of Swedish iron ore, and the Norwegian shipping fleet.[341] Nazi Germany occupied Norway on April 9th 1940; the occupation had important impacts on Norway's development. The German occupying powers expanded and improved infrastructure in Norway during the occupation, including railways, airports, and roads, some of which are still in use today. The occupation also played a role in the development of Norwegian industry. This was especially the case for the Norwegian aluminium industry, but also for other industries such as magnesium production and power plant development. Aluminium was considered critical to the production of war equipment. Hermann Göring chose occupied Norway to produce this aluminium due to the hydroelectric powers that were available, as well as the shipping possibilities.

[339] NOU 1996: 23. *Konkurranse, kompetanse og miljø: næringspolitiske hovedstrategier,* Oslo, Statens forvaltningstjeneste, Seksjon statens trykning.
[340] Sandvik, P. T., & Storli, E. 2011.
[341] Salmon, P. 2002. *Scandinavia and the great powers 1890-1940*. Cambridge University Press.

Nordische Aluminium Aktiengesellschaft (Nordag) started construction work on several power stations and manufacturing plants for aluminium.[342] The production of aluminium continued in Norway after the war, and it grew into an important industry for the Norwegian state, as the state confiscated the aluminium industry, together with several other formerly German-owned businesses, at the end of the Second World War. In general, foreign ownership decreased while state ownership increased, and the Norwegian state grew into a large owner of industry and mines. The Norwegian economy was, and still is, a combination of free market and government intervention.[343]

In the period after the Second World War, the primary focus was on rebuilding the country. Northern Norway was destroyed at the end of the war, and a massive effort was needed to rebuild the region. The Cold War conflict and relations with the Soviet Union were also an important concern in this period, due to Norway's geopolitical position. Norway shared a border with the Soviet Union, and diplomatic relations with this country were therefore of critical importance. For example, Norway refused any foreign military presence on Norwegian soil, unless Norway was under threat of war.[344] Norway received Marshall aid to rebuild the country, and with this came participation in international organisations, such as the Organisation for European Economic Co-operation.[345] Norway also joined NATO upon its establishment in 1949.

The shipping industry has always played a vital role in the Norwegian economy. Norwegian shipping expanded in the 1950s in line with the general growth of world trade. Rapid income growth in Norway, social benefit requirements for seamen, and strict manning requirements in the post-war period changed the Norwegian shipping industry from a low labour cost to a high labour cost industry.[346] The metal industry

[342] Frøland, H. O. 2008. Fra tysk fireårsplan til norsk statsindustri. In: Henden, J., Frøland, H. O. & Karlsen, A. (eds.) *Globalisering gjennom et århundre: norsk aluminiumindustri 1908-2008*. Fagbokforlaget: 173-209.
[343] Thue, L. 2008.
[344] Eriksen, K. E., & Pharo, H. 1993. Norway and the early cold war: Conditional Atlantic cooperation. *Instiutt for forsvarsstudier*, 5.
[345] Jerman, G. 1995. Fra fred til velstand: 1945-1995: 50 år som forandret Norge, Oslo, Norges eksportråd.
[346] Brautaset, C., & Tenold, S. 2008. Globalisation and Norwegian shipping policy, 1850–2000. *Business History*, 50(5), 565-582.

and the chemical industries also thrived in the post-war period, while the pulp and paper industry stagnated.[347] Over 60 per cent of the metal products created in Norway were exported in the 1980s; goods exported included aluminium, ferroalloy, silicon, magnesium, steel, nickel, copper, zinc, mineral, and carbides.[348]

The term 'democratic capitalism' was used by the Norwegian historian, Francis Sejersted, to describe economic development in Norway.[349] Norway has never had a significant nobility, nor a strong social elite, but there has been a strong emphasis on egalitarian values. A high degree of equality and participation in decision-making and a decentralised economic structure are characteristics of this democratic capitalism. There has also been strong public involvement in the economy.[350] The Norwegian state has been more decentralised and had relatively stronger state involvement in the economy compared to the other Scandinavian countries.[351] Small to medium enterprises with little economic power, and companies partly owned by the state, partly by private interests, have dominated the Norwegian economy. The previously mentioned fragmented and small-scale banking system is also a feature of Norwegian democratic capitalism. Several Norwegian firms have been tightly embedded within their local community. The labour unions have also had a strong influence in Norway, and strong protection of labour security has been, and continues to be, important in Norway.[352] There has tended to be a general scepticism towards economic concentration and large firms, in particular foreign firms, in Norway.[353]

## 4.2 Norway and the world in the 1960s and 1970s

The three firms included in this research made their first investments abroad in the 1960s and 1970s. These two decades were characterised by both growth and by

[347] NOU 1996: 23. *Konkurranse, kompetanse og miljø: næringspolitiske hovedstrategier,* Oslo, Statens forvaltningstjeneste, Seksjon statens trykning.
[348] NOU 1984: 8. Utnyttelse og forvaltning av mineralressurser, Oslo, Universitetsforlaget.
[349] Sejersted, F. 1993. *Demokratisk kapitalisme*. Oslo: Universitetsforlaget.
[350] Thue, L. 2008.
[351] Østerud, Ø. & Selle, P. 2006. Power and democracy in Norway: The transformation of Norwegian politics. *Scandinavian political studies*, 29(1), 25-46.
[352] Thue, L. 2008.
[353] Sandvik, P. T., & Storli, E. 2011.

financial stagnation. World production and international trade experienced steady growth between the 1950s and the early 1970s. The period was characterised by the liberalisation of trade barriers through the work of organisations such as GATT (General Agreement on Tariff and Trade). Consequently, international trade in this period grew in importance for most developed countries, including Norway.[354] However, the later years of the 1970s were characterised by lower and more uneven growth, inflation, and increased unemployment.[355] This was preceded by increasing oil prices and increased competition from third-party countries, which in particular affected the development of the iron, steel, and textile industries.[356]

The oil crisis of 1973-1974 had an impact on financial and international trade, both globally and in Norway. The use of oil and gas grew during the 1970s, and both the USA and Venezuela reached their production limit in 1970. This increased the Middle Eastern oil producers' control over the market. The oil crisis took place when the Organisation of Petroleum Exporting Countries (OPEC) restricted the sale and export of oil in November and December 1973. The OPEC, which had been established in 1960, controlled over 85 per cent of the oil export in the world.[357] With the decline in production and export, oil prices increased, which in turn increased costs for other oil-using industries, such as transport. This pulled the world into a financial crisis. The increasing oil prices also led to higher competition and secret trade barriers. There was another rapid increase in oil prices in 1979-1980, which once again had a global effect. Norway had experienced a period of stable growth from 1946 until 1973 and had the advantage of being an oil- and gas-producer when the crisis hit in 1973-74; thus, the country was not as severely affected as it might otherwise have been.[358] Comparatively, the shipping crisis that began in 1974 hit Norway extremely hard. No other country was as affected by this crisis as Norway, where shipping had been a

[354] NOU 1981: 47. Behovet for internasjonalisering av norsk næringsliv, Oslo, Universitetsforlaget.
[355] Sevaldson, P. 1983. *Perspektivberegninger for norsk økonomi til år 2000*, Oslo, Universitetsforlaget.
[356] NOU 1978: 53. *Eksportfremmende tiltak*, Oslo, Universitetsforl.
[357] Issawi, C. 1978. The 1973 oil crisis and after. *Journal of Post Keynesian Economics,* 1**,** 3-26.
[358] Thue, L. 2008: 438-439.

significant industry. It took several years for the Norwegian shipping industry to recover.[359]

In 1979, Norway's economy was described as "[…] a highly extroverted economy"[360], and international development and relations were thus considered very important for the country. Norway was a member of several international organisations related to FDIs, export, and international trade, and the country participated in the European Free Trade Association (EFTA). By 1981, approximately 80 per cent of Norwegian trade was with EFTA and European Economic Community (EEC) countries. Norway was also a member of the GATT. The aim of the GATT was that customs and trade policy concessions given to one country should apply to all participating countries. Norway is also a member of the Organisation for Economic Co-operation and Development (OECD), and the International Monetary Fund.[361]

### 4.2.1 Political and financial situation in Norway in the 1960s and 1970s

Norway in the 1960s and 1970s had an open economy with a high percentage of export. The period was otherwise characterised by the discovery of oil on the Norwegian continental shelf, and a politically turbulent time with the European Economic Community (EEC) referendum. Norway had become an open economy with a dependency on export partly because politicians considered export beneficial for the country. In 1975, the export share of the gross domestic product was somewhere between 40 and 50 percent.[362] Norway was responsible for a significant proportion of the world production of magnesium, aluminium and certain types of ferroalloys during the 1960s and 1970s, and the cheap hydroelectric power continued to have importance during those two decades.[363]

[359] Brautaset, C., & Tenold, S. 2008.
[360] Ibid: 16.
[361] NOU 1981: 47. *Behovet for internasjonalisering av norsk næringsliv,* Oslo, Universitetsforlaget: Vedlegg 1.
[362] Thonstad, T. 1975. Har Norge en for åpen økonomi? Foredrag i statsøkonomisk forening. *Forbruker og administrasjonsdepartementet (FOA), Forbrukeravdelingen: Da-L0156.*
[363] 1969. Ferdigvare-eksporten. Handelsdepartementet –Avdeling for utenrikshandel: Da-0105.

The Norwegian shipping industry grew during the 1950s, but shipbuilding and shipping have always played a unique role in the Norwegian economy and politics. At the outset of the Great Depression, the Norwegian tank fleet was the third largest in the world, and Norway was fourth on the list of the world's leading maritime nations by 1970.[364] During the 1960s and the 1970s, when labour costs increased, the average size of Norwegian vessels more than doubled.[365] The growth of this industry had an impact on the nation's financial development, and export became more diversified during the 1960s. The increasing degree of processing in manufacturing in Norway also contributed to more diversified export during this decade.[366] The shipping crisis in 1973 affected Norwegian shipping severely, and Norway had fallen to 18th on the list of the leading maritime nations by 1987.[367]

As a country, Norway has a long tradition of scepticism towards foreign market powers.[368] This scepticism is seen both in the concession laws from the early 1900s and from the anti-trust legislation in the interwar period. National security, company power (especially from large international cartels), and developmental concerns were all cited as objections against inward FDI. However, inward FDIs and foreign capital were also seen as necessary, and thus they played an essential role in Norway's industrial development. Inward FDI brought much-needed capital and expertise, and provided access to foreign consumers. Inward FDI was therefore seen as a double-edged sword.[369] Foreign investments in Norway decreased between 1920 and 1950,[370] as Norway had adopted a strict concession policy for foreign investments during the First World War and in the immediate aftermath. Further foreign investments in hydropower and energy-intensive industries were discouraged. The restrictions were relaxed during the later parts of the 1920s.[371] It took until the late 1950s and 1960s for foreign investments in Norway to begin to grow again. The financing committee

[364] Sandvik, P. T., & Storli, E. 2011.
[365] Brautaset, C., & Tenold, S. 2008.
[366] 1969. Ferdigvare-eksporten. Handelsdepartementet –Avdeling for utenrikshandel: Da-0105.
[367] Brautaset, C., & Tenold, S. 2008.
[368] Sandvik, P. T., & Storli, E. 2011.
[369] Sanders, A. R. D., Sandvik, P. T., & Storli, E. 2016. Dealing with globalisation: the Nordic countries and inward FDI, 1900–1939. *Business history*, 58(8), 1210-1235.
[370] Midttun, A., Noreng, Ø. & Nygaard, A. 1987. Utenlandske Investeringer i Norsk Industri - Bør de hemmes eller fremmes. Tano, Oslo: 27-34.
[371] Sanders, A. R. D., Sandvik, P. T., & Storli, E. 2016.

(Finansieringsutvalget) was given the task of promoting Norway as an investment option for foreign firms in 1959. This was based on a request from several private industrial organisations that needed capital to develop industry, and the scheme lasted until 1966.[372]

The high per centage of foreign ownership of Norwegian industry changed during the 1970s as Norwegian interests became the owners of more businesses. This change was partly due to the acquisition by the Norwegian state of foreign-owned shares in Norwegian industries.[373] From the 1930s, the Norwegian state played an active role in the economy, and the coordinated market economy was strengthened between 1935 and 1945. A proactive state that willingly regulated the economy was accepted until the late 1970s.[374] However, by this time, the state had grown less interventionist in regard to its economic policy. This was particularly the case after Conservative Willoch became Prime Minister in 1981. Several state-owned industries failed in the late 1970s, and many were privatised or subjected to market-based competition during the 1980s.[375] However, many of the larger firms in Norway continued to remain partly state-owned. Norsk Hydro was one such example. The firm was partly nationalised as part of the war settlement after the Second World War, when the state took over 44 per cent of the company, and the state ownership was extended to 51 per cent in 1970.[376]

Both the 1960s and the early 1970s were turbulent political times in Norway. The Prime Minister and leader of the Labour Party, Einar Gerhardsen, resigned in 1965 after a mining accident in Svalbard. This ushered in the first Conservative government in Norway since before the Second World War. In 1969, an extremely close election was held where the Labour Party came close to regaining power, with 74 out of the 75 mandates required to achieve a majority.[377] However, the European Economic

[372] Midttun, A., Noreng, Ø. & Nygaard, A. 1987.
[373] NOU 1996: 23. *Konkurranse, kompetanse og miljø: næringspolitiske hovedstrategier*, Oslo, Statens forvaltningstjeneste, Seksjon statens trykning.
[374] Thue, L. 2008: 434-435.
[375] Amdam, G., Hansen & Sogner 2001. *Markedsøkonomiens utvikling*, Fagbokforlaget: 274-287.
[376] Thue, L. 2008: 444-445.
[377] Rokkan, S. & Valen, H. 1970. The election to the Norwegian Storting in September 1969. *Scandinavian Political Studies,* 5**,** 287-300.

Community (EEC) debate defined the political climate in Norway in the late 1960s and early 1970s. Between the winter of 1971 and September 1973, four governments held power.[378] The Norwegian government applied for membership of the EEC in 1970, and an agreement on membership was reached between the government and the EEC in January 1972. Norway held a referendum on the issue in September of the same year. However, the results of the referendum rejected membership, with 53.5 per cent of the votes.[379] The three firms presented in this research all supported EEC membership, as did most business interests in the country at the time. It was argued by businesses that membership of the EEC would make investments in the region more accessible, and would drive Norway's industrialisation towards producing more finished products instead of semi-finished products and commodities. In an article published in Norsk Sprængstofindustri's company magazine, it was argued that EEC membership would be beneficial because it would mean that "[…] Norway comes within a broad and dynamic international environment, and that the industry is not left outside the circle where the action is".[380] For Norcem, the Norwegian relationship with the EEC was less important than for the other two firms, as most of their export was to regions outside of Europe. Norcem noted, "An eventual membership in itself will not make our competitiveness in export markets either stronger or weaker".[381]

Oil played a significant role in the development of the Norwegian and international economy in the 1960s and 1970s; it was in these two decades that oil was discovered and developed on the Norwegian continental shelf. In May 1963, the government declared that the ocean floor off the coast of Norway was under Norwegian sovereignty in regard to research and exploitation of natural resources.[382] The first significant oil discovery in Norway was in 1969, and the development of the oil and gas industry has had an immense impact on the country ever since. The first year that export of oil and oil platforms had an immense impact on the Norwegian trade balance

[378] Ryggvik, H. 2010.
[379] Valen, H. 1973. Norway:'no'to EEC. *Scandinavian Political Studies,* 8**,** 214-226.
[380] 1971 "Norsk Industris utviklingsmuligheter i og utenfore EEC", *Spinas Nytt*: Juli. NTNU Universitetsbibliotek.
[381] 1970 "Vi må gjøre vår industri så interessant for nordmenn at styringsretten forblir norsk", *Nytt i Norcem*: 4-70.
[382] Ryggvik, H. 2010: 16.

was 1975,[383] and its importance has since further increased. The Norwegian government chose to utilise and build on previous experience from the waterfall regulations in regard to the management of the oil industry. The American company Phillips Petroleum Company requested exclusive rights to search for oil on the Norwegian continental shelf in 1962, but the Norwegian government refused the request. It was instead decided that contracts for oil exploration should be granted on a concession basis, and concessions were awarded to several companies.[384] Philips discovered 'Ekofisk', a huge oil field in the middle of the North Sea, in 1969. For the rounds of concession following this discovery, the Norwegian state made sure to secure a significant share of the profits.[385] Between 1972 and 1994, the Norwegian government took a protectionist approach to the oil industry, with the aim of building knowledge and suppliers within Norway. The Norwegian state oil company (Statoil/Equinor) was established in 1972,[386] and the Petroleum Fund of Norway was established in 1990.[387] The discovery of oil contributed to a relatively high level of industrial investment in Norway between 1974 and 1977 compared to other OECD countries.[388] The oil industry was thus not as affected by the issues faced by other Norwegian industries during the 1970s.

Another trend in Norway in the early 1970s was a movement towards increasingly larger sized firms.[389] Changes in Norwegian politics and the economy in the 1970s also contributed to an increase in the average firm size.[390] This can be seen in the three firms studied in this research. All three firms merged in the late 1960s and early 1970s; Elkem-Spigerverket became the third largest firm in Norway, Dyno was the eighth largest, while Norcem was the 12th largest firm, based on its stock market valuation in

[383] 1975. Året 1975. Handelsdepartementet –Avdeling for utenrikshandel: Da-0136.
[384] Jerman, G. 1995.
[385] Ryggvik, H. 2010: 24.
[386] Noreng, Ø. 2005. Oljepolitikk og utenrikspolitikk. *Internasjonal politikk,* 63**,** 183-215.
[387] Thue, L. 2008: 461.
[388] NOU 1979: 35. Strukturproblemer og vekstmuligheter i norsk industri, Oslo, Universitetsforlaget: 9-11.
[389] St. meld. Nr. 67 (1974-1975). Norsk industris utvikling og framtid.
[390] Thue, L. 2008.

1980.[391] However, internationally, Norwegian firms continued to be comparatively small within their sectors.[392]

The financial crisis that hit the world in 1973-1974, and the subsequent decrease in economic growth, also affected Norway. Norway's competitiveness deteriorated, owing largely to increasing wages and the strengthening of the Norwegian currency. Inflation in Norway increased faster than in almost any other industrialised country in the years after 1974; this contributed to a trade deficiency, in particular in the years between 1974 and 1977. The export volume decreased by somewhere between 7 and 8 per cent during this period. Two years in particular, 1975 and then 1977, saw the largest decrease in export volume.[393] In parallel with the increase in production and labour costs, the investment and establishment costs in Norway also increased.[394] Norwegian-produced goods became less competitive due to the increased production costs, and Norwegian firms lost market share because of this. The state tried to overcome the financial crisis through Keynesian fiscal policies and an active state, but this did not achieve the success that was hoped for.[395] This policy had been abandoned by the end of the 1970s, primarily due to the large trade deficit that Norway had accumulated by that point. Norwegian competitiveness once again increased from 1978 due to a decline in value of the Norwegian currency.[396] Overall, the 1960s and 1970s was a financially and politically turbulent time in Norway.

## 4.3 Norway, export and Foreign Direct Investments

Norwegian firms were, in general, slow to invest abroad, but there was an increase in outward FDIs by Norwegian firms from the 1960s.[397] Politically, the interest had been in export, and outward FDIs were a little-discussed topic. Up to the 1980s, almost the

[391] Jerman, G. 1995: 115.
[392] Thue, L. 2008.
[393] 1977. Den tradisjonelle vareeksport. Handelsdepartementet –Avdeling for utenrikshandel: Da-0105.
[394] NOU 1979: 35. Strukturproblemer og vekstmuligheter i norsk industri, Oslo, Universitetsforlaget.
[395] Amdam, G., Hansen & Sogner 2001: 281-282.
[396] NOU 1979: 35. Strukturproblemer og vekstmuligheter i norsk industri, Oslo, Universitetsforlaget.
[397] Benito, G. R. & Gripsrud, G. 1992. The expansion of foreign direct investments: discrete rational location choices or a cultural learning process? *Journal of International Business Studies***,** 461-476.

entire focus of internationalisation had been limited to exports, and the government saw FDI as a subcategory of export.[398] It was not until more recently that FDIs came into focus, and there is therefore a lack of government discussions and reports from the 1960s and 1970s.[399]

Although there has been a focus on export since the Second World War in general, it received even more attention in the years following the financial instabilities of the early 1970s.[400] A Parliament Proposal from 1973 argued, "A major public effort to promote exports is among other things necessary because the deficit in the trade balance is rising".[401] Export was seen as essential for bringing foreign currency into the country, which was needed to balance the payment deficit following the oil crisis and the American devaluation of the dollar. The devaluation of the American dollar and other currencies affected the trade balance because of the impact it had on long-running export agreements entered into by Norwegian firms.[402] Nine million NOK was allocated to export-promoting measures in 1973, and half of this went to firms that wanted to participate in international fairs to promote their products.[403] The government also implemented additional financial measures for those businesses that had been affected directly by the currency devaluations.[404]

Export of products such as technical know-how, technology, and management, grew in importance in the late 1970s. This type of export was seen as an interesting source of future income, and it received extra attention from financial institutions and in government reports.[405] The focus on export continued amongst Norwegian politicians during the 1980s, and 1985 was named the 'Year of Export'. The increases in export from 1960 to 1980 are presented in Table 2 below.

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[398] St.prp.nr 88 (1977-1978). Om tiltak med sikte på å fremme norsk eksport.
[399] 1966. Valutaoversikt for kalenderåret 1966/1967. Norske investeringer i utlandet/ Handelsdepartementet, Valutakontoret: Da/L0007
[400] NOU 1985: 35. Utvalget for vurdering av den offentlige forvaltning i det eksportfremmende arbeid: [innstilling], Oslo, Universitetsforlaget.
[401] St.prp.nr 1 (1972-1973). Eksportfremmende tiltak.
[402] 1973. Økning av bevilgningen for eksportfremmende tiltak. Handelsdepartementet –Avdeling for utenrikshandel: Da-0110.
[403] 1973. Kongelig resolusjon av 9.mars 1973. Handelsdepartementet –Avdeling for utenrikshandel: Da-0110.
[404] 1973. Økning av bevilgningen for eksportfremmende tiltak. *Ibid.*
[405] St.prp.nr 88 (1977-1978). Om tiltak med sikte på å fremme norsk eksport.

**Table 2:** Norwegian exports between 1960 and 1980[406]

| *Foreign trade in goods (in NOK million)* | *1960* | *1965* | *1970* | *1975* | *1980* |
|---|---|---|---|---|---|
| *Total exports* | 6.291 | 10.309 | 17.549 | 37.922 | 91.672 |
| *Exports excluding ships and oil platforms* | 5.995 | 9.403 | 15.371 | 30.242 | 87.846 |

In 1977, 90 per cent of Norwegian commodity export went to industrialised countries. Sweden received most of this, while the United Kingdom, West Germany, and Denmark followed behind. These were the four main markets for Norwegian export.[407] Developing countries received approximately seven per cent of Norwegian export, the majority of which was machinery, fish-related products, and chemical products.[408] Export of Norwegian goods to developing countries was a subject that received particular governmental attention in the 1970s, as it was a part of Norway's development aid. Development aid has been an important part of Norwegian foreign politics since the 1960s, and Norway has tried to position itself as a 'humanitarian superpower'. Cooperation between government and private development actors has been one of the central aspects of the Norwegian development aid.[409]

Several governmental and private organisations have, in various ways, worked towards promoting export. The most notable amongst these, Norges Eksportråd (the Norwegian Export Council), promoted the export of Norwegian-produced goods between 1945 and 2004. In the later years of their existence, they also advised Norwegian firms seeking to invest abroad. Norges Eksportråd's task was to:

> *[…] help strengthen Norwegian business activities, promote the best possible utilisation of the country's resources, and contribute to long-term balance in the Norwegian payment relation against foreign countries through active support to Norwegian enterprises in their ongoing export business and internationalisation.*[410]

[406] *Statistisk sentralbyrå, SSB. Utenrikshandel med varer.* [Online]. Available: https://www.ssb.no/muh [Accessed 17/10/16].
[407] NOU 1978: 53. *Eksportfremmende tiltak,* Oslo, Universitetsforl: 16.
[408] Ibid.
[409] Østerud, Ø. 2006. Lite land som humanitær stormakt?. *Nytt norsk tidsskrift,* 23(4), 303-316.
[410] NOU 1981: 47. *Behovet for internasjonalisering av norsk næringsliv,* Oslo, Universitetsforlaget: Vedlegg 4.

The Council thus worked towards developing Norwegian export, and on the coordination and promotion of measures that could help to increase sales abroad. They also had offices and representatives in countries that were considered particularly important for Norwegian export. Furthermore, they contributed financial support for participation of Norwegian firms in international fairs. Norges Eksportråd was also a consultative organ for the government on export and trade-related questions. The Council was organised under the Ministry of Foreign Affairs until 1972, when it was transferred to the Ministry of Trade and Shipping. Norges Eksportråd had 47 members, consisting of participants from export industries, business banks, the fishing industry, the shipping industry, and the labour organisations, together with five members from various ministries. The Council was financed through a small tax on all export except ships, government grants, and a small fee on some of their services. However, the tax on export was their main source of income, and they had an annual budget of approximately 12 million NOK.[411]

Although Norges Eksportråd mainly promoted export, it was, to a limited degree, also involved with promoting FDIs. Together with the private employers' organisation, the Federation of Norwegian Industry, Norges Eksportråd published a book entitled *Establishment abroad - a guide for industry* in 1970, which aimed to encourage Norwegian firms to establish subsidiaries abroad.[412] Although Norges Eksportråd was involved with the book, it was primarily a book initiated and produced by the Federation of Norwegian Industry.

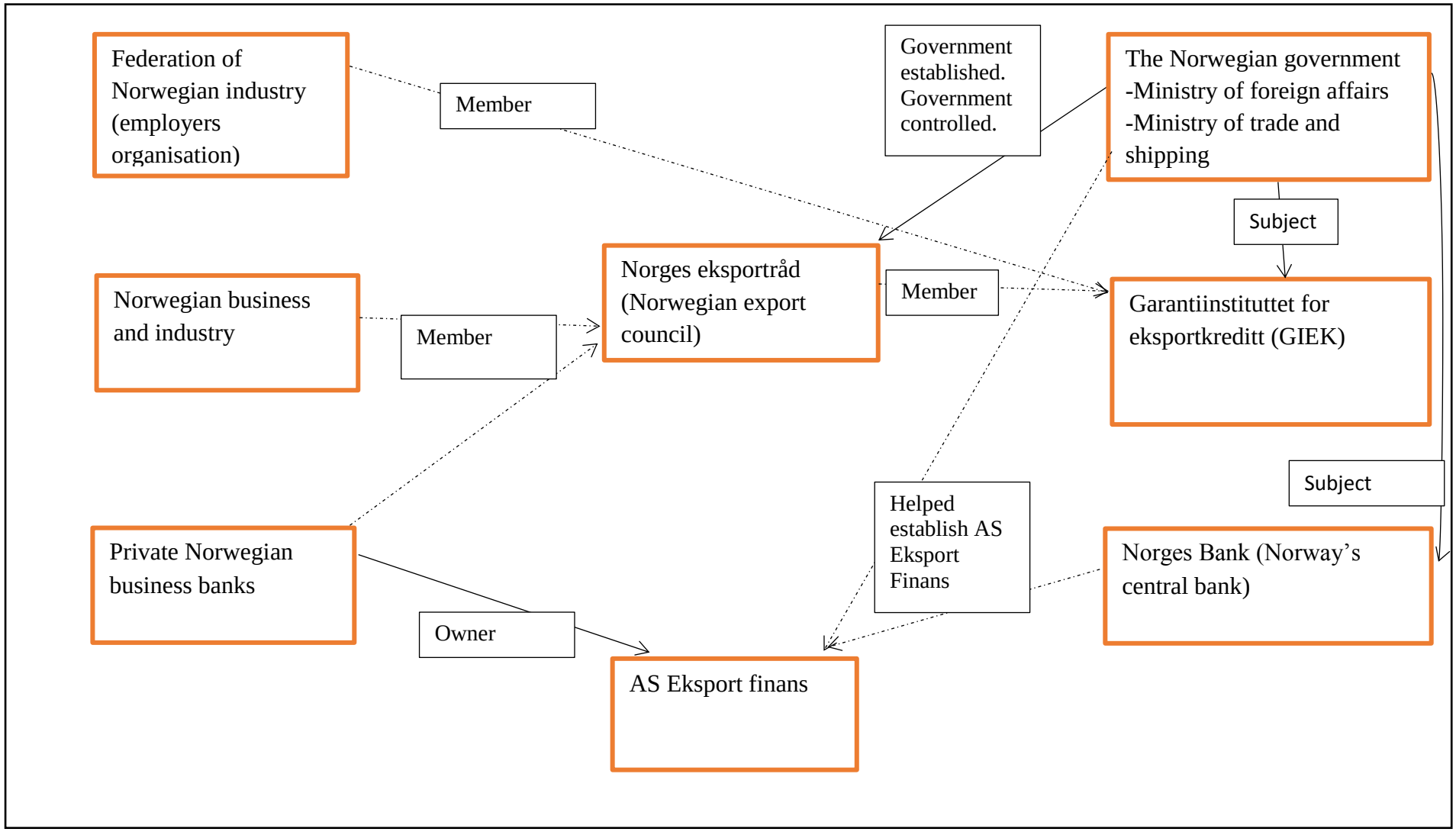
A/S Eksportfinans (Export Finance), also provided support for Norwegian firms that wanted to export goods abroad. This organisation was established in 1962 as a cooperation between Norwegian private banks and the Norwegian government, and provided medium- and long-term credit related to the sale of goods abroad. Compared to commercial credit, the credit offered by Eksportfinans had favourable degrees of

[411] NOU 1978: 53. *Eksportfremmende tiltak,* Oslo, Universitetsforl.
[412] 1970. Håndbok om Norske etableringer ute. *Norges industriforbund: 965*.

financing, duration, and interest rates.[413] Eksportfinans was established because the shipbuilding industry needed a source of long-term credit; it was owned by private banks in Norway, but the Norwegian Central Bank and the government participated in its establishment.[414] The relationship between the different private and governmental organisations that worked toward promoting Norwegian export and FDIs are presented in Figure 1.

[413] NOU 1981: 47. *Behovet for internasjonalisering av norsk næringsliv*, Oslo, Universitetsforlaget:Vedlegg 4.
[414] 1964. Eksportkreditter. Norges Bank, Direksjonsarkivet II: D-1070.

**Figure 1:** Relationship between government, business, and export organisations



### 4.3.1 Foreign Direct Investments

As already mentioned, Norwegian firms were generally slow to invest abroad, but a few firms made such investments early on. Examples include Mustad og Søn, a fishhook producer that invested abroad in 1886,[415] and Norsk Hydro's investment in cooperation with the French government in a nitrate factory in France, in 1916.[416] At least 10 Norwegian manufacturing firms established subsidiaries abroad between 1900 and 1949.[417] However, it was only from the 1960s that there was any significant increase in FDIs by Norwegian firms, and it was not until the 1970s that Norwegian internationalisation began to pick up pace, and the 1980s that internationalisation accelerated and became common among Norwegian firms. According to an article on Norwegian investments abroad from 1974, there were 131 Norwegian subsidiaries abroad that year, and 85 of those were set up after 1965. Most of the subsidiaries abroad were small- or medium-sized.[418] Norway can therefore be classified as a relative latecomer in establishing FDIs.[419] Table 3 shows the number of Norwegian FDIs in various periods, clearly showing the slow start and the increase in FDIs from the late 1960s.

**Table 3:** Establishments abroad divided by start year, according to the Federation of Norwegian Industries[420]

| *Year* | *Number* |
|---|---|
| *1900-1939* | 7 |
| *1940-1949* | 3 |
| *1950-1954* | 2 |
| *1955-1959* | 8 |
| *1960-1964* | 13 |
| *1965-1969* | 38 |
| *1970-* | 47 |
| *Unknown* | 13 |

[415] NOU 1996: 23. *Konkurranse, kompetanse og miljø: næringspolitiske hovedstrategier*, Oslo, Statens forvaltningstjeneste, Seksjon statens trykning.
[416] Andersen, K. G. 2005: 170-172.
[417] 1973. Investeringer i utlandet. *Norges industriforbund: 965*.
[418] 1974. 131 etableringer av norske produksjonsbedrifter i utlandet. *Norges industriforbund: 965.*
[419] NOU 1983: 34. Om Garanti-instituttet for eksportkreditts (GIEK's) garantiordninger, Oslo, Universitetsforlaget.
[420] 1973. 131 etableringer av norske produksjonsbedrifter i utlandet. *Norges industriforbund: 965*.

There are several reasons why Norwegian firms were late to establish subsidiaries abroad. One reason was that most of the products produced in Norway were commodities that could easily be exported. Export was also seen as beneficial because it brought foreign currency to the country, while FDIs were often seen as synonymous with loss of jobs domestically.[421] Examples of products that were easy to produce in Norway for export were fish- and wood-based products.[422] Thus, Norwegian firms were producing for an international market long before the 1970s, but the products were manufactured in Norway and exported abroad.

The 1970s was a turning point for Norwegian FDIs. In this decade, both the number of FDIs and the value of investments abroad increased. Changing political views in Norway, the decision to not pursue EEC membership, the increasing importance of the oil industry, and growing investment and labour costs in Norway all contributed to the increase in FDIs from the 1970s. The decision against EEC membership meant that Norwegian firms had to invest within EEC countries in order to avoid tariffs and to be present in the European common market.[423] The discovery of oil in Norway and the oil crisis in 1973/74 made goods exported from Norway less competitive on the international market; this was due to increased production and investment costs, which grew more in Norway than in most other industrialised countries during the 1970s. Norway also had stricter requirements in regard to environmental impact and labour rights, which further contributed to making investments in Norway less attractive.[424] The Federation of Norwegian Industries stated, "In a situation where the labour market is extraordinarily tight, and with a strong increase in wage levels in Norway, it is likely that a number of companies will choose to invest part of their profits abroad".[425] The oil-related activities in the North Sea also contributed to an increased international orientation and growth in international experience for several sectors.[426] Consequently,

[421] St.prp.nr 1 (1972-1973). Eksportfremmende tiltak.
[422] NOU 1983: 34. Om Garanti-instituttet for eksportkreditts (GIEK's) garantiordninger, Oslo, Universitetsforlaget.
[423] Ibid: 27-28.
[424] NOU 1979: 35. Strukturproblemer og vekstmuligheter i norsk industri, Oslo, Universitetsforlaget.
[425] 1974. Multinasjonale selskaper. *Norges industriforbund: 970.*
[426] NOU 1981: 47. Behovet for internasjonalisering av norsk næringsliv, Oslo, Universitetsforlaget: 16.

the majority of Norway's largest manufacturing firms became multinationals during the 1970s,[427] and between 1978 and 1986, the number of Norwegian FDIs quadrupled. The major exception to this picture was the shipping industry, which had several investments abroad earlier.

The changing attitudes in the Norwegian political environment in the 1970s further contributed to the increase in FDI, as political views on FDI changed from scepticism to encouragement.[428] Prior to the 1970s, the Norwegian government had, in general, been sceptical of outward FDI. This was closely related to Norway's history as a receiver of FDIs and the limited experience Norway had with outwards FDIs. Foreign capital, both as direct investments and in other forms, has played an important role in Norwegian industrialisation and development ever since the country first became independent. In 1965, Norwegian shares and stocks worth 131.2 million NOK were sold to foreign owners, while Norwegian firms only acquired stocks abroad worth 14.6 million NOK.[429] This was consistent across the 1960s, and foreign investments in Norwegian stocks and shares remained at an average of approximately 100 million NOK annually.[430] The high foreign participation has been considered as both favourable and unfortunate in Norway, depending on when the discussion took place. For example, foreign participation was deemed desirable in the period following the Second World War, but this view gradually became more critical during the 1960s. The increased scepticism towards inward FDI was a result of direct investments becoming the common form of foreign involvement in Norway, on behalf of other types of foreign involvement.[431] In a note about foreign investments, created by the Norwegian Central Bank in 1969, it was argued that it was an issue that investments were only "one-way". It was seen as problematic that foreigners were purchasing Norwegian firms, but Norwegian firms were generally not involved in outward FDIs.

[427] Amdam, R. P. 2009. The internationalisation process theory and the internationalisation of Norwegian firms, 1945 to 1980. *Business History,* 51**,** 445-461.
[428] Ibid.
[429] 1966. Inngående og utgående investeringer i aksjer. Norske investeringer i utlandet/ Handelsdepartementet, Valutakontoret: Da/L0007
[430] 1966. Valutaoversikt for kalenderåret 1966/1967. *Ibid.*
[431] 1969. Noen betraktninger om utenlandske bedriftsetableringer i Norge. *Norges bank, Statistisk avdeling: E-0017.*

The note also stated, "It would be desirable if Norwegian firms established themselves abroad through the purchase of foreign enterprises".[432]

Direct investments abroad by Norwegian based firms were, during the 1960s, still seen by politicians as synonymous with the loss of Norwegian jobs abroad, and the practice was thus not highly regarded. In the early 1970s, however, the debate around the issue increased and Borregaards' investment in Brazil in 1968-1969 received particular attention and prompted further discussion.[433] However, Norway was not experiencing an unemployment problem during the early 1970s, so the loss of jobs abroad in association with FDIs was not considered as much of an issue as it had been previously. The Federation of Norwegian Industries' handbook on foreign investments stated, "The authorities seem to have a positive attitude when it comes to such establishments, at least provided we do not have any significant unemployment in this country".[434] At this time, the government viewed FDI as acceptable provided the unemployment rate remained low. The issue of FDIs in developing countries by Norwegian firms as a part of development aid also came into focus during the mid-1970s, and the government discussed how this could be encouraged. Additional financial support for firms that wanted to establish joint ventures in developing countries were introduced.[435] However, FDIs in developing countries were still not a priority in comparison to export.[436] Out of the 131 international subsidiaries that the Federation of Norwegian Industries confirmed to have been established by 1974, only 28 were in developing countries.[437]

The increase in costs that followed the development of the oil industry also contributed to the increase in internationalisation and FDIs by Norwegian firms.[438] The oil industry

[432] 1969. Noen betraktninger om utenlandske bedriftsetableringer i Norge. *Norges bank, Statistisk avdeling: E-0017.*
[433] NOU 1983: 34. Om Garanti-instituttet for eksportkreditts (GIEK's) garantiordninger, Oslo, Universitetsforlaget: 30-31.
[434] 1969. Håndbok om etableringer i utlandet. *Norges industriforbund: 965.*
[435] 1974. Uttalelse fra rådgivende fagutvalg. Handelsdepartementet –avdeling for utenrikshandel: Da-0135.
[436] 1973. Ekspedisjonssjef Løvold. *Ibid.*
[437] 1974. 131 etableringer av norske produksjonsbedrifter i utlandet. *Norges industriforbund: 965.*
[438] NOU 1983: 34. Om Garanti-instituttet for eksportkreditts (GIEK's) garantiordninger, Oslo, Universitetsforlaget: 30-32.

led to increasing salaries, which, together with the oil crisis and the financial problems many industries experienced in the 1970s, likely contributed to the changing views on FDIs by the government. Goods produced in Norway became more expensive, and thus less competitive, on both the home and foreign markets. The processing industry was especially highlighted in a Norwegian Official Report (NOU) on the need for internationalisation, owing to its potential as successful owners of FDIs due to its valuable specialist know-how. For those companies, FDI was seen as an important part of a long-term strategy to ensure production in Norway remained competitive. It was argued to be important that processing industries be able to continue with production in Norway, as those companies often were part of Norwegian regional development policies.[439] In this report, it was also expressed that, "[…] Internationalisation is a means to develop Norwegian industry and not an objective in itself".[440] It is clear that in this period FDI was becoming more acceptable, and even seen as necessary due to the changing political environment in Norway during the 1970s; yet still, it did not receive the same level of attention and support as export had, and continued to receive.

Nevertheless, attention to FDIs from the government continued to increase throughout the 1980s. The Industrial Report for Norway in 1980/81 argued, "We must improve our export structure and, through service exports, transfers of technology, foreign establishments and acquiring operations abroad, increased internationalisation of Norwegian industry [...]."[441] Based on the conclusions of the Industrial Report, a working group with the task of creating a report on the need for internationalisation by Norwegian industry was established; the group published their Official Report (NOU) in 1981. The report stated that Norwegian industry would be facing considerable challenges by the beginning of the 1980s, and concluded that increased internationalisation would contribute to improving the competitiveness of Norwegian firms in a challenging future. It further concluded that the industries' profitability would be strengthened through investments abroad.[442] Thus, the report presented internationalisation of Norwegian firms as an important factor in ensuring the future

[439] NOU 1981: 47. Behovet for internasjonalisering av norsk næringsliv, Oslo, Universitetsforlaget.
[440] 1981. Internasjonaliseringsutvalget. Handelsdepartementet –avdeling for utenrikshandel: Da-0055.
[441] St.meld.nr 54 (1980-1981). Om industripolitiske retningslinjer for de nærmeste år fremover.
[442] NOU 1981: 47. Behovet for internasjonalisering av norsk næringsliv, Oslo, Universitetsforlaget.

survival of Norwegian industry. The arguments put forth in the report align with Hamilton and Webster's view that companies in a small open economy, such as Norway, come under more pressure to enter global markets than firms in bigger markets do. The size of the domestic market and the pressure of competition are cited as reasons for this in their research.[443] The same argument is also mentioned in regard to the need for export of Norwegian products. The NOU on export-promoting measures argued that, "Modern production is based on large production units, and in small countries there is too little demand for production of goods with reasonable low costs."[444] Likewise, a note by the Ministry of Trade and Shipping on the need for export in the future explained that, "Finding export markets [...] is necessary, as the Norwegian market provides for limited provision of alignments for such goods that require relatively large output series".[445]

In a government proposition in 1984/85 the government expressed the wish "[…] that Norwegian industry enters a more active internationalisation process, in addition to normal export and import of goods and services".[446] The government wanted Norwegian businesses to get involved abroad either through acquiring firms, establishing subsidiaries, or through closer cooperation with firms abroad. The rationale for this was that it would grant Norwegian firms access to markets that were otherwise protected and generate income for the Norway-based parent company. Different political measures were implemented to help Norwegian firms establish themselves abroad from 1985, such as a graduate training programmes and currency loans for foreign-established subsidiaries. The regulations concerning currency restrictions were also loosened, and both firms and private investors were given free access to buy stocks in foreign companies provided the companies were listed on the stock market.[447] The majority of Norwegian political parties supported the political measures implemented to increase Norwegian investments abroad during the 1980s.

[443] Hamilton, L. & Webster, P. 2015. *The international business environment*, Oxford University Press, USA.
[444] NOU 1978: 53. *Eksportfremmende tiltak,* Oslo, Universitetsforlag: 33.
[445] 1975. Notat: Behovet for eksportfremmende virksomhet. Handelsdepartementet –avdeling for utenrikshandel: Da-0109.
[446] St.prp.nr 87 (1984-1985). Tiltak for internasjonalisering av norsk næringsliv.
[447] Ibid.

However, there were still some concerns from various politicians that this would contribute to moving Norwegian jobs abroad.[448] Thus, although the government worked toward increasing Norwegian firms' involvement abroad from the middle of the 1980s, amongst politicians in Norway some of the scepticism that was pervasive in previous decades remained.

One issue that has been seen as closely linked to increased export and to FDIs from Norwegian firms is related to management, leadership, and marketing knowledge. Several books, papers and even some NOUs have been published on the Norwegian management education and culture. Marketing knowledge played an important role in regard to increased export, and Norwegian management and leadership education were discussed in an NOU from 1973. The report highlighted that leadership and administrative education and research had been a little-prioritised area, but that the interest in this area was increasing.[449] Norway, together with the other Scandinavian countries, has a relatively 'flat' management structure; this leadership structure is often referred to as 'Scandinavian management'.[450] This structure includes a low power dependency between managers and subordinate. This management structure has sometimes been a challenge when Norwegian firms have sought to establish themselves abroad. The Federation of Norwegian Industries published an information brochure that stated the following in regard to management: "Regarding the personnel policy, one should be aware that in other countries there will often be a greater distance between the leadership and the rest of the staff than what we are used to."[451] Historically, there has also been a close relationship between the managers of Norwegian firms in different industries, and between managers and the government. Participation in various organisations, such as Norge Eksportråd (the Norwegian Export Council), by both the government and managers has contributed to strengthening and maintaining these relationships. Gerhard Heiberg, the manager of Norcem, was the chair for Norges Eksportråd between 1978 and 1981. He took over

[448] St.tidene P. 3770-3787 (1984-1985). Internasjonalisering av norsk næringsliv.
[449] Sæthre, K. B. 1973. *Lederopplæring: utredning fra Lederopplæringsrådet i Norge*: utredningen avgitt i februar 1973, Oslo, Universitetsforl.
[450] Grenness, T. 2003. Scandinavian managers on Scandinavian management. *International Journal of Value-Based Management,* 16**,** 9-21.
[451] 1971. Manus til forretnings- og bedriftslederen. *Norges industriforbund: 965.*

this position from Christian Sommerfelt, the manager of Elkem, who had held it since 1965.[452] Ragnar Halvorsen from Dyno held the same position from 1987.

Marketing knowledge and skill are important in export promotion and successful FDIs. In an NOU from 1978, Norwegian firms were criticised for their lack of focus on these areas. The NOU stated, "The management of the companies has been mainly production-oriented, and there has been a prevailing perception that sales more or less will manage itself if one is only competitive in price and quality".[453] This was particularly the case in regard to export, since a majority of the products exported from Norway had been raw materials and semi-finished products, products where quality and price were the most important factors, rather than marketing abilities.[454] However, as the degree of processing increased, the need for marketing abroad also grew. The lessening of trade restrictions during the 1960s also meant that competition increased and that marketing grew further in importance.[455] The Norwegian Export School was established in 1961 with the aim of increasing knowledge about export.[456] Financial support for firms that wanted to present their products at fairs was one of the several measures implemented to increase managers' focus on marketing. Norges Eksportråd also helped firms with marketing, but noted in 1969 that, "Marketing efforts have largely been left to the companies themselves".[457] In 1979, the Norwegian School of Economics was in the process of establishing an education programme for middle management involved in international business; the aim was to strengthen the competitiveness of Norwegian businesses.[458] The managers of the larger Norwegian firms typically had experience from studies abroad in addition to studies in Norway, and thus their management style could have been influenced by several sources. This was the case with the managers of the three firms in this research.

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[452] Jerman, G. 1995: 105.
[453] NOU 1978: 53. *Eksportfremmende tiltak,* Oslo, Universitetsforlag: 39.
[454] Ibid.
[455] 1969. Trenger vi en mer aktiv eksport. Handelsdepartementet –avdeling for utenrikshandel: Da-0109.
[456] 1975. Eksportfremmende tiltak under Handelsdepartementet. Forbruker og administrasjonsdepartementet (FOA), Forbrukeravdelingen: Da-L0156.
[457] 1969. Trenger vi en mer aktiv eksport. Handelsdepartementet –avdeling for utenrikshandel: Da-0109.
[458] 1979. Internasjonalisering av ledelsesmiljøet i internasjonale bedrifter. *Handelsdepartementet – avdeling for utenrikshandel: Da-0050.*

Regulations related to Norwegian outward FDIs were limited; the most important regulation was the currency licence. All FDIs by Norwegian firms had to obtain a currency licence from the Norwegian Central Bank (Norges Bank) before any capital could be transferred abroad and investments could be carried out. The exception to this was the shipping industry, which needed approval from the Ministry of Trade and Shipping instead of from the Central bank. Norwegian investments abroad were otherwise not regulated under Norwegian law.[459] The currency licence requirement had been in place since 1950, and Norway insisted on continuing this regulation even when it later participated in international agreements on FDIs. It was usually easy to obtain the licence, and applications were only rejected in rare cases in which Norwegian industry would have had little involvement in the proposed project.[460] The Federation of Norwegian Industries also confirmed that it was typically not problematic to obtain the currency licence.[461] The government thus had the means available for controlling FDIs by Norwegian firms, but this was never used as a controlling measure. However, being granted the licence meant accepting certain terms set by the central bank and the government. The central bank decided the exact terms for each currency licence application, but generally four terms were included, as follows:

1. The firm must, for each fiscal year in the future, send a balance sheet and income statement for the foreign company to Norges Bank.
2. Dividend shall be brought back to Norway. Accumulation of funds beyond what would be normal capital formation for further development of the foreign company shall not take place without Norges Bank's consent.
3. Transfer of shares to other owners shall not take place without Norges Bank's consent, obtained in advance.

[459] NOU 1983: 54. *Om revisjon av valutareguleringen*, Oslo, Universitetsforlaget: 61-63.
[460] NOU 1981: 47. Behovet for internasjonalisering av norsk næringsliv, Oslo, Universitetsforlaget: 27.
[461] 1971. Manus til forretnings- og bedriftslederen. *Norges industriforbund: 965.*

4. If the foreign company's business, directly or indirectly, should be expanded to include new purposes, including the establishment of or participation in other companies, permission from Norges Bank must be obtained in advance.[462]

In the 1970s, Norway also became involved with international investment regulations at a higher level. From the middle of the 1970s, Norway participated in the Committee for International Investments and Multinational Companies, which worked toward developing international standards and guidelines for international investments and multinational companies with the aim of making it possible to increase control over and management of multinational enterprises. The work was organised through the Organisation for Economic Co-operation and Development (OECD).[463]

The main locations for Norwegian outwards FDI in the 1970s were Sweden, Denmark, and the United Kingdom. The USA, Canada, and Singapore were other popular areas.[464] The Federation of Norwegian Industries found that, out of their 131 registered manufacturing subsidiaries abroad, 88 were established in Europe, 16 in America, 11 in Africa, 14 in Asia, and two in Australia.[465] A study by Benito and Gripsrud in 1992 found that physical distance had no impact on the investment decisions taken by Norwegian manufacturing firms that invested abroad before 1982.[466] An expanded survey by Amdam, however, found that as much as 41 per cent of the included 301 FDIs by Norwegian firms between 1945 and 1980 made their first foreign investment elsewhere in Scandinavia.[467] According to the NOU *The Need for Internationalisation*, investment incentives had little impact on the decision to invest abroad for Norwegian firms. Majority ownership was the most common ownership structure amongst the 1,297 Norwegian FDIs that were registered in 1978. Out of those FDIs, 75 per cent

[462] NOU 1981: 47. *Behovet for internasjonalisering av norsk næringsliv*, Oslo, Universitetsforlaget: Vedlegg 3.
[463] 1975. OECD. Rapport fra møtet i komiteen for internasjonale investeringer og multinasjonale selskaper 9-10. juli 1975. *Finansdepartementet, Skatteavdelingen SL: Da-L0624.*
[464] NOU 1983: 34. Om Garanti-instituttet for eksportkreditts (GIEK's) garantiordninger, Oslo, Universitetsforlaget: 29.
[465] 1974. 131 etableringer av norske produksjonsbedrifter i utlandet. *Norges industriforbund: 965.*
[466] Benito, G. R. & Gripsrud, G. 1992.
[467] Amdam, R. P. 2009.

had Norwegian majority ownership. In general, it was the larger Norwegian firms with a high per centage of export that were the most involved in FDIs.[468]

From its slow start in the 1960s until the present day, internationalisation and FDIs by Norwegian firms has increased hugely. In 1976, 204 firms received currency licences worth 242 million NOK. Both the number of investments and their value continued to grow throughout the remainder of the 1970s. In 1980, 272 licences were granted, with a total value of 679 million NOK.[469] By November 1984, a total of 2,956 firms with Norwegian ownership of over 10 per cent were registered abroad, representing an increase of almost 10 per cent compared to the previous year.[470] In 2012, almost two-thirds of the 30 largest Norwegian firms made the majority of their sales abroad.[471] Today, FDI is seen more as the norm than as the exception amongst Norwegian firms.

### 4.3.2 The Guarantee Institute for Export Credits (GIEK)

One of the main institutions that supported Norwegian firms seeking to either export abroad or invest in foreign countries was the Norwegian Guarantee Institute for Export Credits (GIEK). The Institute helped to promote the export of Norwegian goods, export of services, and Norwegian FDIs. It also gave special guarantees for export and investments in developing countries as a part of Norwegian development aid.[472] GIEK still exists as a public enterprise under the Ministry of Trade, Industry and Fisheries (former Ministry of Trade).[473] The government and parliament in Norway control GIEK through their annual budget allocations.[474] GIEK was led by a board on which the Ministry of Trade and Shipping, the Ministry of Foreign Affairs, the Ministry of Industry, the Norwegian Bankers' Association, the Federation of Norwegian Industries, and the Norwegian Export Association were represented. In addition, there

[468] NOU 1981: 47. Behovet for internasjonalisering av norsk næringsliv, Oslo, Universitetsforlaget.
[469] Ibid. Vedlegg 5.
[470] St.Prp.nr. 87 (1984-1985). Tiltak for internasjonalisering av norsk næringsliv.
[471] Heum, P. 2013. Vekst og internasjonalisering i norske storforetak.
[472] Johnson, A. & Martin, M. 2003. *Key Analytical Issues for Government External Financing*. HIPC CBP Publication.
[473] *Om GIEK* [Online]. Available: http://www.giek.no/en/om_giek [Accessed 17/10/2016].
[474] *GIEKs Historie* [Online]. Available: http://www.giek.no/om_giek/historie [Accessed 28/05/2016].

was also a consultative advisory group in which export business and labour organisations were represented.[475]

The history of the GIEK can be traced back to the 'Russia Commission', which was created in the 1920s, through which export of salted fish, herring, and aluminium to Russia was supported on a year-to-year basis from 1922 to 1928. In 1929, the Russia Commission was established to organise the support of export to Russia via a more official and permanent institution. Just five years later, in 1934, the name was changed to the 'Governments Export Credit Commission' and the scope was expanded to include export to all countries. The name was changed again, to the Guarantee Institute for Export Credits, in 1960, which persists to this day.[476] The Institute's main purpose has always been, as its name indicates, to ensure state guarantees for export credits. The GIEK was also involved with granting special guarantees for exports to and investments in developing countries.[477] An exchange rate guarantee scheme existed between 1975 and 1987, with the aim of helping firms faced with currency issues in regard to their investments and export abroad. It was also possible to obtain financial support for feasibility studies regarding possible investment or management tasks in developing countries, but this was organised through the Norwegian Agency for Development Cooperation (Norad).

The main purpose of the GIEK, and the reason it was first established, was to ensure and grant state guarantees for export credits. This element of their work was also known as the 'ordinary guarantee scheme', and aimed to help promote the sale of Norwegian goods and services and to make the exchange with other countries easier. The guarantees granted under this scheme cover losses arising due to reasons such as the foreign debtor becoming insolvent or failing to pay for goods and services. This type of guarantee could not exceed 75 per cent of the individual claim. The guarantees could also cover losses due to trade or currency restrictions in the debtors' home country, or if foreign states or public monopoly companies did not fulfil their payment

[475] 1975. Eksportfremmende tiltak under Handelsdepartementet. Forbruker og administrasjonsdepartementet (FOA), Forbrukeravdelingen: Da-L0156.
[476] 1975. *GIEKs Historie* [Online]. Available: http://www.giek.no/om_giek/historie [Accessed 28/05/2016].
[477] St.Prp.Nr. 66. (1964-1965). Om Garanti-Instituttet for Eksportkreditts virksomhet i 1964.

obligations. These types of guarantees could cover up to 85 per cent of the individual claim, except in special circumstances where up to 90 per cent could be guaranteed.[478]

The ordinary scheme was both the largest, in financial terms, and the most commonly used out of all of the GIEK's guarantee schemes.[479] The GIEK generated income from interest rates, premiums, and fees, and the aim was to ensure the scheme could be self-financing.[480] By 1962, Norwegian firms had received guarantees for exports to over 85 different countries, including several developing countries.[481] This contributed to the decision in 1963 to divide the guarantees into ordinary and special schemes, starting from January 1964; this also created an incentive to invest in developing countries.[482]

#### *4.3.2.1 Guarantees for developing countries*

A special section of the GIEK's work involved promoting export to and investments in developing countries. This guarantee scheme for developing countries was established in 1963 and provided guarantees for both export to developing countries and for private investments in developing countries. The scheme was considered a part of Norway's development aid, and as such, the money to finance the guarantees was drawn from the development aid budget. Therefore, the insurance was granted in cooperation with Norad, the Norwegian Agency for Development Cooperation. The official name of the scheme was 'Government guarantees on special terms for exports to developing countries and for investments in developing countries' (*Statsgaranti på særlige vilkår ved eksport til utviklingsland og ved investeringer i utviklingsland*). A developing country was defined as all countries defined by the Development Assistance Committee (DAC) as development countries.[483] The DAC is an international committee under the authority of the Organisation for Economic Co-operation and Development (OECD).

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[478] St.Prp.Nr. 129. (1973-1974). Om endring av Stortingets vedtak om statsgaranti ved eksport.
[479] St.Prp.Nr. 66. (1964-1965). Om Garanti-Instituttet for Eksportkreditts virksomhet i 1964.
[480] St.meld.Nr. 84 (1966-1967). Om Garanti-Instituttet for Eksportkreditts virksomhet i 1966.
[481] 1962. Eksportgarantier og utviklingshjelp. Garantiinstituttet for eksportkreditt: Ab-L0021.
[482] Innst.st.nr. 229 (1962-1963) Om statsgaranti på særlige vilkår ved eksport til utviklingsland og om statsgaranti ved investeringer I utviklingsland.
[483] Ibid.

The requirement for obtaining the guarantees was that, "Relevant transactions will contribute to or lay the groundwork for a significant economic growth in the country concerned".[484] As the guarantees were considered a part of the Norwegian development aid, it was necessary that the investments would benefit the developing country. However, there was no fixed definition or criteria for how an investment should achieve this. Norad had to be represented at all meetings where these types of guarantees were discussed, and their recommendation was necessary before a guarantee could be given.[485] It was thus up to Norad to decide if the investment could be considered to promote development. In special cases, where the guarantee was for either over 10 million NOK in the case of FDIs or for 20 million NOK in the case of export credits, the Norwegian Ministry of Trade and Shipping had the decisive vote. This was also the case when essential questions regarding the scheme and the granting of guarantees were raised.[486] Norad often gathered information about the country a firm was considering investing in, collected from a variety of sources, such as the World Bank, or other countries that had previously invested there, before the guarantees were granted. Norad would examine the stability of the country, and if investments would be associated with significant risk. It also looked into and considered whether the country had fair developmental and social policy, and if the investment would contribute to improvements for the elite or for the general public. If a country did not fulfil those elements, guarantees were often not granted. In the case of Norcem's investment in Ras al-Khaimah, information was gathered from the World Bank, the International Monetary Fund, and the United Nations Development Programme before the guarantee was given.[487] In 1969, a total of 240,000 NOK was paid out for the guarantees under the special development scheme, while over 1.5 million NOK was paid out under the ordinary scheme in the same year.[488]

[484] St.meld.nr. 84 (1966-1967). Om Garanti-Instituttet for Eksportkreditts virksomhet i 1966.
[485] 1964. Særlige garantier ved eksport til utviklingsland og garantier for private investeringer i utviklingsland. *Garantiinstituttet for eksportkreditt: Da-0005.*
[486] 1969. Alminnelige bestemmelser. *Ibid.*
[487] 1976. Telex Norad. Direktoratet for utviklingshjelp (Norad): Da-L0794.
[488] St.meld.nr. 77 (1969-1970). Om Garanti-Instituttet for Eksportkreditts virksomhet 1969.

The development export guarantees covered Norwegian firms that exported goods from Norway to developing countries. Those guarantees had a longer credit limit and accepted a higher risk than the ordinary guarantees. Initially, the guarantees had no premiums, but there was a small administration fee.[489] It was therefore cheaper for a firm to obtain development export guarantees compared to regular guarantees. In 1969, a premium was introduced also for the development scheme in order to discourage applications from firms that were seeking only to avoid premiums in the regular scheme.[490] The premium for export guarantees was set at the same level as the regular export guarantee, but this could, in special cases, be decreased or entirely removed. The administration fee was set as one quarter of the total fee and premium payment. The main advantages for firms using the development guarantee scheme over the regular guarantees were that the premium could be removed and, more importantly, that credit could be given over a longer timeframe than under the regular guarantees. The reasoning behind this was that Norwegian industry was not financially strong enough to have large outstanding claims over more extended periods, which export to developing countries required.[491] The development investment scheme had a total premium and administration fee of 0.7 per cent of the insured sum, per year.

The GIEK also gave guarantees for Norwegian firms that wanted to do an FDI in developing countries. The guarantee for investments in developing countries covered Norwegian investors for the political risks they might encounter while investing in a developing country. The political risks the scheme covered were divided into three main categories:

1. Expropriation, confiscation, or similar interventions from local governments
2. War, rebellion, or similar conditions

[489] St.meld.nr. 84 (1966-1967). Om Garanti-Instituttet for Eksportkreditts virksomhet i 1966.
[490] 1968. Til medlemmer og varamenn i det utvidete styret. *Garantiinstituttet for eksportkreditt: Da-0005.*
[491] 1968. Utkast for protokoll for møtet i det utvidete styret den 1/2-68. *Ibid.*

3. Obstacles for conversion and transfer of funds from the host country to Norway[492]

A strike was not covered by the insurance, nor were the commercial risks or expenses arising from mistakes or negligence by the investors. Guarantees would not be granted to already existing investments, unless the investment was a part of an expansion, modernisation, or rationalisation, or otherwise contributed to further economic development of the business.[493] Investments that commenced prior to the application for guarantees being submitted would also not receive guarantees, unless these had been made in preparation for the main investment.[494]

Norwegian investments in developing countries were initially slow, even with the help of the GIEK. From the start of the development scheme in 1963 to the end of 1969, the guarantees had been granted to investments in only seven developing countries: Peru, Ethiopia, Ghana, Brazil, Zambia, Indonesia, and Singapore. One of the major recipients was Guru Papp in Indonesia, who received guarantees worth 23,854,000 NOK between 1963 and 1975. Comparatively, in the same period, Norcem received guarantees covering 5 million NOK for its investment in Ghana, and Norsk Sprængstofindustri (NSI) received guarantees worth 2.6 million NOK for its investment in Singapore. The most-debated investment, due to its size, was Borregård's investment in a cellulose factory in Brazil in 1969.[495] Borregård received 131,431,000 NOK in guarantees for this investment, which was more than the guarantees granted for all the other investments combined at that time.[496] Borregård's investment was also criticised and discussed because it foremost benefited the Norwegian parent company, rather than the developing country. In the government discussion of the Borregård investment, the question of whether or not FDIs could be considered a form of development aid was also raised. However, this particular issue

[492] 1967. Særlige garantier ved eksport til utviklingsland og garantier for private investeringer i utviklingsland. G*arantiinstituttet for eksportkreditt: Da-0005.*
[493] 1968. Utkast for protokoll for møtet i det utvidete styret den 1/2-68. *Ibid.*
[494] 1969. Bestemmelser om statsgaranti på særlige vilkår. *Ibid.*
[495] 1971. Norske etableringer i u-land. *Norges industriforbund: 965.*
[496] 1970. Oversikt over effektive investerings- og eksportgarantier 1963-1970. *Direktoratet for utviklingshjelp (NORAD): Da – L0667.*

did not receive much attention, and Norway's history of benefiting from inward investments was provided as an argument against the issues that were raised.[497] Aside from Borregård's investment in Brazil and Guru Papp's investment in Indonesia, most of the Norwegian FDIs in developing countries were relatively small companies, and usually only employed between 25 and 50 people.[498]

Besides the guarantees for export and investment in developing countries, it was also possible to receive financial support for feasibility studies in advance of a potential investment in a developing country. This support was administrated and financed by Norad, which would potentially cover up to 50 per cent of the cost of the feasibility study.[499] Support was granted to 13 applicants between 1969 and 1971, but few of these firms decided to go ahead with their investment following the feasibility study.[500]

Norwegian firms were in the early 1970s described by the government as being wary of investments in developing countries. There was limited interest amongst Norwegian businesses for investing in developing countries, and private capital transfer from Norway to developing countries was generally less than from other industrialised countries.[501] It was agreed by Norad and the government that industry needed to be involved if the government development aid aims were to succeed, and, for the most part, private investments were considered a productive means of reaching the development aid aims. The government thus tried to encourage such investments, not only through the GIEK schemes, but also through mutual agreements on the protection of private investments and cooperation with Norwegian ambassadors on opportunities and local regulations. In 1970, for example, an agreement on the protection of private investments in Indonesia was signed.[502] The agreement between the two countries was established because there had been an increasing interest amongst Norwegian firms in

[497] St.tid.p. 4072-4105 (1967-1968). Innstilling fra finanskomiteen om virksomheten for Garanti-instituttet for eksportkreditt i 1967.
[498] 1971. Norske etableringer i u-land. *Norges industriforbund: 965.*
[499] NOU 1981: 47. Behovet for internasjonalisering av norsk næringsliv, Oslo, Universitetsforlaget: 37.
[500] St.meld.nr 29 (1971-1972). Om enkelte hovedspørsmål vedrørende Norges samarbeid med utviklingslandene.
[501] Ibid.
[502] 1970. Bilaterale avtaler om beskyttelse av private investeringer. *Direktoratet for utviklingshjelp (Norad): Da-L0667.*

investing in Indonesia. The aim of the agreement was to secure the same investment rights for Norwegian firms as other nations had, and to secure and promote Norwegian investments in the country.[503] The Norwegian government tried to initiate similar agreements with other developing countries, and also established more general tax agreements with several countries, to avoid double taxation where Norwegian businesses were involved.[504]

In 1964, the financial framework for the GIEK's ordinary guarantees was set at 1,000 million NOK, while the development aid scheme had a financial framework of 300 million NOK. The ordinary scheme was both larger and more widely used than the development scheme;[505] this was likely related to the fact that the majority of Norwegian export, too, went to industrialised countries. The development scheme increased steadily in popularity, and, in 1969, its financial framework was increased to 600 million NOK.[506]

*4.3.2.2 Foreign guarantees and international agreements*

Norway was not the only country to give state guarantees for export credits; these were guarantees that most industrialised countries provided, with the aim of increasing export. The first government export credit insurance programme was established in the United Kingdom in 1919 under the name of the Export Credits Guarantee Department (ECGD). In 2001, there were approximately 200 export credit agencies (ECAs) in 100 countries. An ECA is typically defined as a highly specialised bank, insurance company, finance corporation, or a government-dependent agency that offers loans and/or guarantees, insurance, or technical assistance to exporters. The ECAs cover commercial and political risks for exporters with the backing of the national government, and the aim of promoting a nation's export.[507] Export guarantees became a competitive necessity for firms seeking to export abroad, in particular for firms

[503] St.prp.nr. 63 (1969-1970). Om godkjenning av en avtale mellom Norge og Indonesia.
[504] St.meld.nr. 29 (1971-1972). Om enkelte hovedspørsmål vedrørende Norges samarbeid med utviklingslandene.
[505] St.prp.nr. 66 (1964-1965). Om Garanti-Instituttet for Eksportkreditts virksomhet i 1964.
[506] St.meld.nr. 77 (1969-1970). Om Garanti-Instituttet for Eksportkreditts virksomhet i 1969.
[507] Gianturco, D. E. 2001. Export credit agencies: the unsung giants of international trade and finance, Greenwood Publishing Group.

looking to export to developing countries. Almost all industrialised countries offered state guarantees for long-term export credits to developing countries. Several countries also offered a 'matching principle', where the state would ensure that local firms would receive the same financial and credit conditions as firms from foreign nations would receive in their home country.[508] Guarantee schemes to protect investments abroad were, however, less common. When Norway implemented such a scheme, Japan, the USA, and West Germany were the only other countries offering these guarantees. However, by 1968, similar schemes were also provided by Sweden, Denmark, Austria, Israel, and Australia.[509] One out of every eight dollars of world trade was financed by one of the approximately 200 export credit agencies that existed in 2001.[510]

Export credit agencies aim to protect businesses operating abroad from commercial and political risks.[511] Several international organisations and agreements have been established and signed with the aim of regulating export credit schemes, and Norway has participated in several of them. The World Trade Organisation (WTO), for example, has an agreement on subsidiaries and countervailing measures, which regulates the use of export subsidiaries.[512] The OECD also had specific regulations for state guarantees, and the consensus agreement 'Guidelines for officially supported export credits' was signed in the late 1970s. This agreement set minimum levels for interest rates for long-term credit, and certain other requirements for guarantees and credit granted by the state.[513]

The primary international organisation that governs export guarantees is the Bern Union, the international organisation for credit and investment insurers. The Bern Union was formed in 1934 and consists of both private and public insurers.[514] All of

[508] 1964. Eksportkreditter. Norges Bank, Direksjonsarkivet II: D-1070.
[509] 1968. Til medlemmer og varamenn i det utvidete styret. *Garantiinstituttet for eksportkreditt: Da-0005*.
[510] Gianturco, D. E. 2001: 1.
[511] Hawley, S. 2003. Turning a Blind Eye: Corruption and the UK Export Credits Guarantee Department, Corner House.
[512] Moser, C., Nestmann, T. & Wedow, M. 2008. Political risk and export promotion: evidence from Germany. *The World Economy,* 31**,** 781-803.
[513] NOU 1983: 34. Om Garanti-instituttet for eksportkreditts (GIEK's) garantiordninger, Oslo, Universitetsforlaget: 9-10.
[514] *About the Berne Union* [Online]. Available: http://www.berneunion.org/about-the-berne-union/ [Accessed 17/10/2016].

the older export credits agencies, and many of the newer agencies, are members of the Bern Union, and the GIEK is amongst them.[515] Members of the Bern Union benefit from access to information about other countries and their solvency, but they also have to adhere to regulations for state-financed guarantees.[516] However, none of the regulations in the Bern Union is legally binding. The Union also makes a distinction between guarantees for export to developing and industrialised countries. For example, the guaranteeing institutes are only required to notify the other Union members when guarantees for export to developing countries go beyond the regulations agreed upon by the Union members, whereas in the case of guarantees to industrialised countries the granting of the guarantee must be discussed.[517]

In the late 1960s and early 1970s, the possibility of establishing an international investment guarantee institute was discussed in the World Bank. When Norwegian participation in such an institute had been discussed in 1967, the Norwegian Institute had decided that it was "currently unlikely to be beneficial that Norway joins a multinational investment guarantee institute".[518] Norway remained sceptical when the idea was discussed again in 1970. This scepticism was primarily related to fears that participation in an international institute would increase the risks and the costs involved with guarantees. This was, according to Norway, due to other countries having less strict requirements for developing effects with investment guarantees to developing countries, and because large industrialised countries seemed to be particularly vulnerable to political risk.[519] The debate continued during the early years of the 1970s, but it was not until 1988 that the World Bank was able to establish the Multilateral Investment Guarantee Agency. Norway was not one of the original members, but today is a participant.[520]

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[515] Stephens, M. M. 1999. *The changing role of export credit agencies*, International Monetary Fund: 3.
[516] NOU 1983: 34. Om Garanti-instituttet for eksportkreditts (GIEK's) garantiordninger, Oslo, Universitetsforlaget: 9-10.
[517] 1962. Eksportgarantier og utviklingshjelp. Garantiinstituttet for eksportkreditt: Ab-L0021.
[518] 1970. Møte i utvidet styre 17/09. Garantiinstituttet for eksportkreditt: Aa-0023.
[519] 1970. Protokoll til vedlagt møtekart vedrørende utviklingsgarantier 17/09. *Ibid*.
[520] *MIGA: History* [Online]. Available: https://www.miga.org/who-we-are/history/ [Accessed 17/02/2017].

## 4.4 Summary and Conclusions

Norway gained independence in 1905 after centuries of union with either or both Denmark and Sweden. Norway has since had an international, open economy where hydroelectricity, shipbuilding and shipping, fishing, chemical industries, pulp and paper, and oil and gas have been the major industries. Its financial and economic development has been relatively state-regulated. One of the first and most significant state regulations was the concession laws in the early 1900s. Experiences from then played an important role in the regulation of the oil industry after oil was discovered and the industry developed from 1969. The 1970s in Norway were otherwise characterised by political turmoil, an oil crisis, and debate surrounding participation in the EEC. Following the referendum held in 1972, it was decided that Norway would not join the EEC. Internationally, the politics during the 1960s and 1970s were characterised by the oil crisis, the devaluation of the American currency, and changing market structures. The political and economic development both globally and in Norway during the 1960s and 1970s had an impact on internationalisation by Norwegian firms.

Historically, export has been the prioritised internationalisation strategy in Norway, and as such received the most attention from government. Norway has had a very open and internationally dependent economy in which export was considered very important, as it brought income and foreign currency into Norway. FDIs, on the other hand, were less prioritised from a political perspective, at least until the late 1970s and the 1980s. Nevertheless, a small number of Norwegian firms invested abroad earlier than the political interest, and to an increasing degree from the 1960s. The three firms in this research were amongst those companies that were relatively early to establish subsidiaries abroad, but they were not the only ones to do so. From the 1970s and throughout the 1980s, the number of FDIs increased further, and became more common practice. There were several reasons for the increase in FDIs by Norwegian firms, including the changing views on FDI in Norway, the decision to remain outside of the EEC, and the development of the oil industry, all of which increased the popularity of establishing subsidiaries abroad. The size of the Norwegian market was also a factor that contributed to the increased internationalisation during the 1970s.

FDIs by Norwegian firms was mainly regulated through the currency licences granted by the Norwegian Central Bank. Besides this, there were few regulations that Norwegian firms had to comply with. The government was not very involved with outward FDIs in general, but offered help and support for export abroad through Norges Eksportråd and other financial initiatives. The GIEK offered support for export abroad and direct investments in developing countries. The Institute was established in the 1960s and helped Norwegian firms seeking to export or invest in developing countries by granting guarantees to insure them against commercial and political risks. This was seen as a part of Norway's development aid, and all guarantees covering investments in developing countries were granted in cooperation with Norad.

The development trends in Norway, characterised by an open economy with a strong focus on export, had an impact on the decisions taken by the three firms studied in this thesis. Their Norwegian background influenced their development, their investment decisions, the options available to them, their risk management, and how they came to invest abroad. The three firms grew to become some of the largest Norwegian firms after they merged, and all three were involved with export before they decided to invest abroad. The managers of the three firms were all also involved in Norges Eksportråd. It is thus likely that Norwegian politics and economics in the 1960s and 1970s affected their decision to invest abroad.

# 5.0 Dyno Industrier

Dyno Industrier ASA (hereafter referred to as Dyno) was established in 1972 after a merger between Grubernes Sprængstoffabriker and Norsk Sprængstofindustri (NSI). The primary production of both of these companies was explosives, but they were also involved in other chemical-related industries. The two companies had established subsidiaries in West Germany, Singapore, and England before the merger. In the years following the merger, Dyno continued to invest abroad in both chemical- and explosives-related areas until the company was purchased and divided in 2005.

This chapter will examine the Foreign Direct Investments (FDIs) that NSI, Grubernes, and then the merged firm, Dyno, undertook between 1967 and 1972. It will also examine how Dyno chose to manage risk when investing abroad, and which risks the firm focused on. The investments will be presented chronologically, starting with NSI's first investment in West Germany in 1966/1967, followed by NSI's investment in Singapore in 1970, Grubernes' acquisition of an English firm in early 1971, and the merged firm's investments in Denmark and Finland in 1972.

Dyno is an interesting firm because of its varied investment patterns. The firm was involved with FDIs both in and outside of Europe, and was engaged in different sectors, such as plastic and industrial adhesives. Dyno made its first investment abroad in 1966/1967, and grew into an international firm with several subsidiaries abroad during the early 1970s. Dyno was the first of the firms included in this research to undertake an FDI, and from a Norwegian perspective, the firm was early to invest abroad. Dyno was also one of the first Norwegian firms to establish a subsidiary in Singapore, which later grew into a significant region for Norwegian FDI. Singapore has been one of the more popular countries for Norwegian firms to invest in, primarily due to the fact that both Singapore and Norway have strong shipping industries. There has therefore been more research conducted on Norwegian investments in Singapore than almost anywhere else. The inclusion of Dyno in this research was also due to the extensive data material available for the company.

## 5.1 Background and merger

Dyno was established in 1972 when Grubernes Sprængstoffabriker and Norsk Sprængstofindustri A/S (NSI) merged. This section will describe the establishment of the two firms, their respective backgrounds, and the merger.

NSI was established in 1917 after a merger between several smaller explosives-producing companies in Norway. The most significant of the merging companies, Nitroglycerin Compagniet, had roots going back to the Swedish explosives inventor, Alfred Nobel. Nitroglycerin Compagniet had owned all rights to produce nitroglycerin explosives for the Norwegian market, but the rights to produce this for export were sold to A/S Haaøen Fabriker.[521] Haaøen Fabriker was a factory established by Sam Eyde in 1915. Eyde played an essential role in Norwegian industry in this period, and was the creator of Elkem[522], one of the other firms studied in this research. Haaøen Fabriker never succeeded with their export aims, and faced significant financial difficulties. The merger between Nitroglycerin Compagniet and Haaøen Fabriker took place as an attempt to rescue Haaøen Fabriker, rather than as a strategically planned merger. Nitedals Krudtværk A/S, Nordenfjeldske Sprængstof A/S, and Norsk Svovlsyrefabrik A/S were also included in the merger, and in June 1917, Norsk Sprængstofindustri A/S was officially established.[523]

NSI's primary business area was always the production of explosives, but it was also involved in other chemical industries, and it was within those areas that NSI made its first FDIs. This began with the establishment of Norsk Kunstharpiks A/S in 1947 (later Gullaug Kjemiske Fabrikker). This factory produced formalin and binding adhesives for use in paint and varnishes from 1949. It also produced industrial adhesives in liquid and pulverised (dry) forms, alkyds, and interlayers.[524] This company became essential for NSI's, and later Dyno's FDIs as a vast share of their export and several of their FDIs were related to the production of industrial adhesives and alkyds. NSI's core area, however, continued to be explosives, but no FDIs in this area were accomplished

[521] Magnus, M. 1966. *Norsk Sprængstofindustri A/S*. Jubileumsskrift: 134-137.
[522] Sogner, K. 2003. Skaperkraft: Elkem gjennom 100 år: 1904-2004, Messel forl.
[523] Magnus, M. 1966: 134-138.
[524] Halvorsen, R. 2000. Dyno industrier: fra nasjonal til internasjonal bedrift, DYNO: 120.

until the 1980s, and then as the merged company, Dyno. The reason NSI prioritised industrial adhesives and alkyd production in its FDIs was because the company felt it could compete internationally with those products, whilst the competition was much stronger in explosives.[525] It was not until Dyno was offered an opportunity to invest in a new type of explosives that the firm went ahead with FDIs in this sector.

The second company that merged into Dyno in 1972 was Grubernes Sprængstoffabriker. This company was founded in 1917 with the purpose of competing against NSI and its Nobel technology. The factory produced Aerolitt explosives, a Danish invented type of explosives that differed from the explosives produced by NSI. The two types of explosives had the same application area, and the two firms were in direct competition with each other. Grubernes was always the smaller and the less important of the two firms. The factory was established as De norske Aerolitt-og fænghættefabrikker, but the name was changed to Grubernes Sprængstoffabriker shortly after it was founded.[526]

Norsk Sprængstofindustri (NSI) and Grubernes Sprængstoffabriker (Grubernes) were the two main competitors on the Norwegian private explosives market, but they also cooperated on occasions when it was mutually beneficial. However, the relationship had, according to Grubernes, been shaped by "mistrust and misuse".[527] The explosives industry in Norway experienced critical changes in the 1960s when cheaper, foreign explosives became the preferred product over the Norwegian-produced explosives. Closer cooperation between the two firms became a necessity. Eventually, after strong persistence from NSI and a major accident at one of the Grubernes factories, the two companies merged in May 1972. Grubernes was officially dissolved and NSI bought the shares.[528] A new name, Dyno Industrier, was selected to demonstrate that the merger was an agreement between the two participants rather than an acquisition by NSI, though the name Dyno was already an established product name for NSI in

[525] Interview with Halvorsen, August 2015.
[526] *Grubernes Sprængstoffabrikker AS* [Online]. Available: http://www.industrimuseum.no/grubernes [Accessed 30/09/2016].
[527] Skotner, B. 1971. Samarbeid med Norsk Sprængstofindustri. *Grubernes Sprængstoffabrikker AS: 150.212_114.31-116.*
[528] 1971. Styrebeslutning 8.6.1971. *Dyno: Dyno Industrier Styrende organ: nr. 5, 111/113.*

foreign markets. The decision to merge the two firms was taken at NSI's annual general meeting held on 8 October 1971. The merger was formally implemented in May 1972, but the two companies were informally run as one from October 1971 when the decision was taken.[529] Anton Merckoll, NSI's former director, became the new managing director for Dyno, while Grubernes' former director, Gunnar Brøndmo Jr., became second in command. Dyno defined itself as a stock company with the aim to "run chemical industries, and whatever is related, and to participate as a shareholder or in other ways in industrial businesses."[530]

With the merger, Dyno became the only civil explosives-producer in Norway; the firm continued to grow until it became the world's largest civil explosives-producer. The company name was changed to Dyno Nobel Sweden in 1999 after the acquisition of the Swedish Nobel firm. A Swedish investment firm bought Dyno Nobel in 2000, and in 2005, Dyno Nobel was sold to an Australian firm, which split up the firm and sold it off in smaller pieces. Both production sites and offices in Norway closed, and the Norwegian explosives-producing history came to an end.[531]

### 5.1.1 Export and expansion

In 1965, precisely 100 years after Dyno's forerunner, Nitrogenlyse Compagniet, was established, Norsk Sprængstofindustri (NSI) only had production facilities in Norway. By 1990, just 25 years later, Dyno had expanded and invested abroad in 30 different countries.[532] Dyno grew to become an international firm with production facilities in and exporting to countries all over the world from the middle of the 1960s. In 1970, before the merger, exported NSI products worth approximately 72 million NOK. Of this, 39 million NOK of export was to the Nordic countries, 8 million NOK was to the rest of EFTA (European Free Trade Association), 7 million NOK was to the EEC (European Economic Community), and exports worth around 18 million NOK went to

[529] 1971. Styrebeslutning 8.6.1971. *Dyno: Dyno Industrier Styrende organ: nr. 5, 111/113.*
[530] 1976. Styremøte i Dyno industrier 31.august. *Dyno: Nr 11, 150.212:152.2-929.*
[531] *Norsk Sprængstofindustri A/S* [Online]. Available: http://www.industrimuseum.no/bedrifter/norskspraengstofindustria_s [Accessed 13/04/2015].
[532] Dyno 1990. Dyno i dag: bilder i et jubileumsår, Oslo: 12.

the rest of the world.[533] Internationalisation through both export and FDI was seen as essential for the survival of the firm in the long term. This can, for example, be seen in how Anton Merckoll, the director of NSI and later Dyno, presented the company to its workers in the company magazine *Spinas Nytt* in 1969-1970. Merckoll argued "[…] a firm of our type has to expand every single year to keep up with steadily increasing expenses and to be able to make the necessary investments in connection to rationalisation and capacity increasing".[534] Gaining a foothold on the international market was seen as the only viable option to ensure necessary maintenance and improvement, which was needed to meet foreign and internal competition.[535]

Dyno's monopolisation of its home market was one of the drivers of its attempts to enter the international market. The changing views on FDI in the Norwegian political environment, from scepticism to encouragement, likely also contributed.[536] The mid-1970s and early 1980s can be seen as a turning point in regard to FDIs coming from Norwegian firms, and Dyno was a part of this. Norway's decision to remain outside of the EEC in 1972 likely strengthened the emphasis on internationalisation in Dyno, which was a strong supporter of EEC membership in the lead up to the referendum.[537] Inflation in Norway and the increasing costs of labour and production were also important factors. In a meeting about expansion in 1971, it was argued that,

> *[…] It is clear that our expansion in the formalin and adhesives sectors in the future must be made through establishments abroad as we are not competitive in distant markets, both because we lack our own production of raw materials and because of customs and transportation costs."*[538]

Arguably most important for Dyno's rapid internationalisation from the mid-1960s was the changing technologies and consumer interests, especially in the explosives sector. Norway had been rebuilt after the Second World War, but by the 1960s, the rebuilding was, to a large degree completed and need for explosives on the Norwegian

[533] 1970/71. *Spinas Nytt: Vinter*. NTNU Universitetsbibliotek.
[534] Merckoll, A. 1969/70: Spinas Nytt: Vinter. *Dyno: Nr 11, 150.212:152.2-929.*
[535] 1972. Etableringer i utlandet. Dyno: Styrende organ etter nøkkel: nr 36, 114 Styret.
[536] Amdam, R. P. 2009. The internationalisation process theory and the internationalisation of Norwegian firms, 1945 to 1980. *Business History,* 51**,** 445-461.
[537] 1974. Støttemedlemskap i Europabevegelsen. Dyno: Styrende organ etter nøkkel nr. 36, 114 Styret.
[538] 1971. Styremøte 28.9.1971 - Kjøp av aksjer i limfabrikk i Spania. *Dyno: Styrende organ etter nøkkel nr. 34, 114 Styret.*

market was decreasing. 1966, the year NSI made its first FDI, was also the first year when NSI's turnover in the explosives sector was less than the turnover in its other sectors. NSI's focus on products in areas other than the explosives sector had begun in the 1950s, and the firm expected this trend to continue and increase during the 1970s.[539] Internationally, the use of industrial adhesives, one of NSI and later Dyno's most important export products, was changing. The cheaper, but less transport friendly, liquid adhesives became more popular as an alternative to powder/dry adhesives. At the general meeting in May 1973, director Merckoll explained to the participants that:

> *The expansion possibilities on the Norwegian market are limited for both the chemical and the explosive sectors. […] The growth possibilities domestically for the plastic section are obviously there, but profit possibilities seem at this time to rather be in rationalisation and effectivity improvement rather than in increasing production volume. It is therefore natural to seek expansion abroad; partly through exports of products that can stand transportation costs and potential customs charges, and partly through the establishment of local production or acquisition of already existing firms.*[540]

Merckoll argued that international expansion meant that Dyno would be able to use its know-how, which had been developed in Norway, in markets with a higher growth rate. This was particularly the case for the explosives industry, which was changing and diminishing in Norway at the time,[541] but it was also relevant for other areas of NSI's production.

Investments, which were required to keep up with the changes and developments in production methods and technology, were expensive. NSI therefore did not consider those costly investments to be viable in a smaller market such as Norway, and saw participation in the international market as essential in order to keep up with changes in the industry.[542] This argument is similar to that put forth by Hamilton and

[539] 1966. Årsberetning for 1966. *Dyno: Styrende organ etter nøkkel nr. 31, 114.*
[540] 1973. Adm. direktørs redegjørelse på generalforsamlingen onsdag 9. mai 1973. *Dyno: Styrende organ etter nøkkel nr 1, 110.4-9433.*
[541] 1973. Adm. direktørs redegjørelse på generalforsamlingen onsdag 9. mai 1973. *Dyno: Styrende organ etter nøkkel nr 1, 110.4-9433.*
[542] 1972. Etableringer i utlandet. *Dyno: Styrende organ etter nøkkel nr 36, 114 Styret.*

Webster,[543] and the Norwegian government's argument from the late 1970s.[544] Both argued that Norwegian firms were under more pressure to internationalise and invest abroad due to the limited size of the Norwegian market. In the 1970s, FDI was seen as the best way forward for Dyno by its leadership. The decision-makers saw internationalisation as the solution to the national and international developments underway in some of their core sectors, and the risk of not investing abroad was seen as higher than the risk involved in those investments.

Several investment options were discussed in NSI in the mid-1960s, but most of them never progressed from the discussion and planning stage. One of NSI's earlier attempts at an FDI was to Portugal in 1967. There was a plan to enter into a joint venture with a Portuguese oil company for the building of a urea adhesives and formalin factory.[545] However, the investment was never completed due to the Portuguese government's refusal to grant the necessary permissions.[546] NSI also considered an acquisition of Petunia, a Swedish company, in 1967. NSI discussed whether it should acquire some, or even all of the shares in the company, which produced and sold different types of industrial adhesives. The key advantage of the potential investment was that it would have secured NSI deliveries of formalin for its industrial adhesives production in Norway. It was also argued that the investment could be used as a stepping-stone towards gaining market shares in Sweden. However, after reviewing Petunia's financial position, NSI decided against the investment on the basis that the asking price was too high compared to the potential gains for NSI from the investment.[547] In this situation, NSI chose option A in the ISO standard, avoiding the risk by deciding not to commence the activity with which the risk is associated.

[543] Hamilton, L. & Webster, P. 2015. *The international business environment*, Oxford University Press, USA.
[544] NOU 1978: 53. *Eksportfremmende tiltak,* Oslo, Universitetsforlag:
[545] 1968. Deltagelse i opprettelse av fabrikk for formalin og lim i Portugal. *Dyno: Styrende organ etter nøkkel nr 32,114.*
[546] Halvorsen, R. 2000: 139.
[547] 1967. Handels- og Fabriksaktiebolaget Petunia, Styremøte 4.9. *Dyno: Styrende organ etter nøkkel nr. 31, 114.*

## 5.2 West Germany 1966/1967

The first FDI that NSI successfully pursued was to Hamburg, West Germany, in 1967. The investment had been discussed and planned since 1964,[548] the first investments were done in 1966 and production started in July 1967.[549] The subsidiary was named Spiwo Kunstharzproduktion G.m.b.H (Spiwo) and the factory produced amino resins, which are used as adhesives. The subsidiary was a joint venture with the German chemical producer Chemi-Handelsgesellschaft E. H Worlée & Co. m.b.H (Worlée). The investment only lasted until 1971, and it never generated a profit. The facilities were closed down and the company was changed into a trade company in 1971. The following sub-sections will discuss NSI's first FDI, including the background to the investment and the eventual closure in 1971.

### 5.2.1 Background to the investment

NSI decided to invest in Spiwo for several reasons, including political and financial ones. One of the primary reasons was the connection NSI had to the German chemicals market. NSI had cooperated with Worlée since 1962, which had been responsible for selling NSI's amino resins (Dynominer) on the German market. The purpose of the subsidiary was production of amino varnish resins for the German market. Worlée was already producing synthetic resins for use in varnish and adhesives, but lacked any production of amino resins.[550] The company therefore decided to cooperate with NSI, which had experience with production of this type of resins from Norsk Kunstharpiks A/S (Gullaug Kjemiske fabrikker), the company it had established in Norway in 1947. Its amino resins had been exported both to Europe and outside of Europe since 1954.[551] In *Spinas Nytt*, NSI's company magazine, it was stated that Worlée's "[…] choice fell on our DYNOMINER due in part to the good reputation that these products have in Germany".[552]

[548] Halvorsen, R. 2000: 141.
[549] 1967. "Oppstarting av Spiwo anlegget i Hamburg". *Spinas Nytt*: August. NTNU Universitetsbiblioteket.
[550] 1966. Produksjon av Dynomin Amino lakkharpikser i Tyskland. *Dyno: Styrende organ etter nøkkel nr. 31, 114.*
[551] 1964. "Dynomin – Et norsk eksportprodukt". *Spinas Nytt*: Sommer. NTNU Universitetsbibliotek.
[552] 1967. "Oppstarting av Spiwo anlegget i Hamburg". *Spinas Nytt:* August. Ibid.

Each of the two participating firms in the joint venture would own 50 per cent of Spiwo. The founding principle was that the two partners would cooperate in a company that would be the owner of the necessary equipment, and production space would be rented from Worlée's existing factory. Worlée would also be in charge of selling the amino resins, which it would receive six per cent remuneration for. NSI's main contribution was the production know-how, and the company received a royalty of five per cent of the factory's worth for this contribution. The two companies planned to share additional profits or deficits 50/50.[553] The decision to create a joint venture between the two companies was primarily based on the knowledge they could each contribute; NSI had the knowledge of how to produce amino resins, while Worlée had production facilities, knowledge, and experience from the German market.

The aim in June 1966 was to produce 1,600 tons of amino resins annually.[554] In August of the same year, the production aim was decreased to 1,200 tons per year.[555] Both targets were equivalent to a small share of the German and EEC markets. In Germany alone, the market was estimated to be for somewhere between 20,000 and 25,000 tons, while the amino resins market for the EEC was estimated to be for around 50,000 tons.[556] According to NSI, the subsidiary would need to sell 1,000 tons annually to make a profit. An annual sale of 1,200 tons, based on German prices in August 1966, would give NSI a profit of 200,000 NOK per year, licensing included.[557] This would roughly equate to 1,915,000 NOK in 2015 values, or £181,500.[558]

NSI and Worlée were obliged to maintain the subsidiary for at least 10 years, with certain exceptions. The subsidiary could be closed before the ten-year period had elapsed if one of the two companies stopped producing synthetic resins, if Norway joined the EEC, or if the subsidiary failed to make sufficient profit to cover the licence

[553] 1966. Protokoll for styremøtet 30. august 1966. *Dyno: Styrende organ etter nøkkel nr. 31, 114.*
[554] 1966. Produksjon av Dynomin Amino lakkharpikser i Tyskland. *Ibid.*
[555] 1966. Protokoll for styremøtet 30. august 1966. *Ibid.*
[556] 1966. Produksjon av Dynomin Amino lakkharpikser i Tyskland. *Ibid.*
[557] 1966. Protokoll for styremøtet 30. august 1966. *Dyno: Styrende organ etter nøkkel nr. 31, 114.*
[558] SSB. *Konsumprisindeksen, priskalkulator* [Online]. Available: http://www.ssb.no/priser-og-prisindekser/statistikker/kpi/maaned/2016-11-10?fane=tabell#content. [Accessed 13/04/2015].

payment to NSI for three consecutive years.[559] The agreement that the company could be closed down if Norway joined EEC indicates that NSI saw this subsidiary as a potential entry point into the European Common Market. Further to this, NSI argued that cooperation between themselves and the German firm was needed due to increasing customs regulations implemented by the EEC countries, which made it more difficult for a company with a production site outside of the EEC to compete in those markets. A local factory would strengthen NSI's competitiveness in those markets. It was also suggested that the factory would help toward securing a foothold in regard to future production and sales in the EEC.[560] This joint venture was therefore seen as a potential starting point for future expansion into the EEC market.

This investment in West Germany was NSI's first FDI, since earlier plans for a factory in Portugal had not come to fruition and it had decided against investing in Sweden. Thus, for its first FDI, NSI entered into a 50 per cent joint venture with a company it had an existing relationship with, Worlée, in a market where it had previously exported products. NSI's director at the time, Anton Merckoll, held an engineering degree from Germany, and the market was therefore not unknown for them.[561] NSI had high expectations of the benefits the FDI could bring, believing that the joint venture would help toward securing deliveries from Norway to the FDI in Germany. The factory was also seen as an entry point for the EEC market. The potential risk the investment could bring was not highlighted in the board meetings; rather, the potential benefits were at the forefront of discussions.

### 5.2.2 From the investment onwards

Production at the Spiwo factory started in 1967 but closed just a few years later. The investment was never a financial success, and the factory ran at a deficit. According to NSI, this deficit was due to a situation of strengthened competition, especially after 1967 when Germany experienced a recession.[562] The German company BASF

[559] 1966. Protokoll for styremøtet 30. august 1966. *Dyno: Styrende organ etter nøkkel nr. 31, 114.*
[560] 1966. Produksjon av Dynomin Amino lakkharpikser i Tyskland. *Ibid.*
[561] 1964. "Den nye administrerende direktør" *Spinas Nytt*: Vinter. NTNU Universitetsbibliotek.
[562] 1968. Represententskap i Norsk Sprængstofindustri A/S 16.desember *Dyno: Styrende organ etter nøkkel nr. 4, 111 -111/113.*

(Badische Anilin- und Soda-Fabrik) was an especially strong competitor for Spiwo's amino resins. BASF was one of the world's biggest chemical producers and therefore also a strong competitor for NSI. In 1970, Spiwo accumulated a deficit of 80,000 Deutsche Mark (DM). Since the factory had first commenced production in 1967, it had accumulated a total deficit of 543,000 DM. The capital invested by NSI in the firm in 1966 had been 350,000 DM; by 1971, the remaining capital in Spiwo was reduced to only 157,000 DM. The strength of the competition destroyed what in 1966 NSI had seen as a potentially profitable investment. The investment also failed to give NSI a foothold within the EEC. NSI decided that it would be more beneficial to produce the amino resins in Norway and export them to Germany, as it had done previously.[563] NSI thus abandoned its first FDI in 1971.[564] It was decided that the subsidiary should continue as a trading company, but it is rarely mentioned in later board meetings.

By the time the production at Spiwo was closed down, NSI was in the midst of establishing FDIs in other markets where it was known for its export products. The failure of the first FDI did not prevent the firm from trying again, although there were a few years between its first and second investments abroad. At the time of Spiwo's closure, it was argued within NSI that, "It is not our intention in any way to give up on our operations in the common market, but we believe that the way the conditions presently are, it would be appropriate to produce in Lillestrøm for sale".[565] NSI wished to continue its involvement in the EEC, but with a primary focus on export. However, in the same year as the withdrawal from Spiwo, NSI was also discussing the option of investing in a factory in Spain. This investment was completed years later.[566]

In summary, NSI's first FDI cannot be said to have been successful. NSI failed to make a profit from it, due to strong competition, and almost all the invested capital was lost. Nor did the investment give NSI the foothold within the EEC markets that had been hoped for when the investment decision was taken. However, the investment did give NSI experience with FDI, which was likely an advantage in the further investments.

[563] 1971. Styremøte 28.09 - Datterselskaper i utlandet. *Dyno: Styrende organ etter nøkkel nr 34, 114 styret.*
[564] 1971. Protokoll fra styremøtet 28.9.1971 i Norsk Sprængstofindustri A/S. *Ibid.*
[565] 1971. Styremøte 28.09 - Datterselskaper i utlandet. *Ibid.*
[566] 1971. Styremøte 28.09 - Kjøp av aksjer i limfabrikk i Spania. *Ibid.*

NSI continued to invest in chemical areas, but in its next investments it decided to retain the management and the main responsibility for the sale and production. There was also a greater focus on research on both competitors and the market before NSI and later Dyno made its next FDIs.

## 5.3 Singapore 1970

NSI's second FDI was in an industrial adhesives factory in Singapore producing formalin and adhesives. The factory in Singapore opened on 7 November 1970[567] and was a joint venture where NSI held the majority share. The factory was very successful and led to several other investments in Asia by NSI/Dyno. This section will examine NSI's investment in Singapore, the background to the investment, the choice of country, and the company's future involvement in the region.

NSI's experience with adhesives production originated from Gullaug Kjemiske Fabrikker. The experience from this production facility was also the background for the earlier investment in West Germany. The decision to establish the adhesives and formalin factory in Singapore was taken at an NSI board meeting in June 1969. The subsidiary was named Dyno Industries Singapore Pte. Limited, based on 'Dynosol Pulverlim' and 'Dynorit Urealim', the names of two well-established products already being sold by NSI in East Asia.[568] This factory took the Dyno name before Grubernes and NSI merged and created the Norwegian company Dyno Industrier.

Singapore became a part of the British-controlled Straits Settlement in 1826 when rule over the island was transferred to the East India Company.[569] Between 1942 and 1946, Singapore was controlled by Japan. After the Second World War, Singapore became a Crown Colony under British rule before gaining autonomy in 1959. Independence from the United Kingdom was gained as a part of the new Federation of Malaysia in 1963.[570] Singapore gained full independence in 1965 after a conflict forced the country

[567] 1970/71. *Spinas Nytt*: Vinter. NTNU Universitetsbibliotek.
[568] Halvorsen, R. 2000: 173.
[569] Gisnås, L. 1995. Jakten på kjempemarkedet: Norsk business i Singapore, Fagbokforlaget.
[570] Turnbull, C. M. 2009. A history of modern Singapore, 1819-2005, Nus Press.

to leave the Federation of Malaysia. The decision to leave the Federation played an important role in Singapore's development as an international economy, as independence critically reduced the island nation's home market, and shipping grew in importance.[571] Singapore retained much of its British cultural heritage, keeping English as an official language, and an English-based legal system. Business law in Singapore was very similar to the UK Company Act 1948.[572] Singapore also maintained its close connections to Malaysia after independence, and the currency was the same as in Malaysia until 1973. Singapore grew to become one of the dominant trading and shipping cities in Southeast Asia.[573]

Singapore experienced strong financial growth in the years following independence and it grew into one of the most international economies in the world. Several of Singapore's policies were aimed toward drawing industrial investments to the country. The Singapore Development Board was established in 1961, and Singapore's investment incentives played a role in attracting a large number of foreign investments in the country. The stable political climate and strong financial growth in the years following independence also contributed to the same.[574] Singapore had very few restrictions on private foreign investments into the country; there was, for example, no regulation of the ownership ratio in joint ventures between foreign and local investors.[575] NSI was one of several companies that invested in Singapore in the 1970s. American investments in the country grew by 90 per cent during this decade, according to the *Singapore Investment News*.[576] In addition, the British were also very active in Singapore, and an advisory group aiming to promote British establishments, investments, and trade was established in 1970.[577]

[571] Gisnås, L. 1995: 45-49
[572] Lee, P. W., & Chen, C. C. 2016. Modernising Company Law: The Singapore Experience. *Company and Securities Law Journal*, 34(2), 157.
[573] Turnbull, C. M. 2009
[574] Gisnås, L. 1995
[575] 1972. Norske privatinvesteringer i utviklingsland. Singapore. *Direktoratet for utviklingsland (NORAD) Da- L0667.*
[576] 1971. January. "Singapore Investment News". Direktoratet for Utviklingshjelp (NORAD), Eab-L0236.
[577] 1970. Britisk samhandel med og investering i Singapore. *Ibid.*

Norway first became involved with Singapore through the shipping industry, as several Norwegian ships and sailors passed through Singapore in the 1950s and 1960s. In the 1960s in particular, Singapore was considered the most important port in the Far East by the Norwegian shipping industry. Singapore's Minister of Finance, Mr Hon Sui Sen, mentioned the shipping relationship between Singapore and Norway in a speech at the opening of Dyno's factory in Singapore. According to him, an average of approximately 1,030 Norwegian vessels passed through Singapore's port annually.[578] In 1963, Norway and Singapore entered a tax agreement, with the aim of avoiding double taxation between the two countries and preventing fiscal tax evasions.[579] The background to the agreement was the agreement between Norway and the UK, which had covered Singapore until 1961. The important point for Norway in the discussions about the agreement with Singapore was shipping revenues, because this was where Norway and Singapore interacted most frequently in the 1960s. The first Norwegian company to establish itself in Singapore was Bruusgaard, Kiøsterud & Co, which opened an agency office in the country in 1953. It was primarily a shipping firm, but also had a trade department in Singapore for a few years, until this was closed in 1956.[580] During the 1960s and 1970s, several other Norwegian firms established themselves in Singapore. A/S Promotion was established to promote Norwegian business in Singapore and Malaysia, and was a cooperation between several Norwegian firms.[581] Mustad and Son, Kenmore, and Kongsberg Våpenfabrikk all established subsidiaries in Singapore in the early 1970s.[582] Mustad and Son, a producer of fishhooks for export, established a wholly owned subsidiary in Singapore in 1972.[583]

In summary, Singapore was a country that was relatively well known in Norway due to the importance of its shipping port to the Norwegian shipping industry. Several Norwegian shipping companies established themselves in Singapore during the 1960s

[578] 1970. Speech by the Minister for Finance, Mr. Hon Sui Sen, at the opening ceremony of Dyno Industries (S) PTE. LTE. *National Archives of Singapore.*
[579] St.prp nr. 63 (1963-64). Om samtykke til ratifikasjon av overenskomst mellom Norge og Staten Singapore til unngåelse av dobbeltbeskatning og forebyggelse av skatteunndragelse for så vidt angår skatt av inntekt.
[580] Gisnås, L. 1995
[581] Harben, C. A. 1969. Norway Keen to Invest in Region. *The Straits Times*, May 18th.
[582] 1975. Norway's National Day. *The Straits Times*, May 18th.
[583] 1972. Singapore – Investering i fiskekrokfabrikk. *Direktoratet for utviklingshjelp (Norad): Da-L0793.*

and the 1970s. NSI was the first Norwegian manufacturing firm to open a subsidiary in Singapore, but several other Norwegian firms followed during the 1970s and 1980s.

### 5.3.1 Background to the investment

NSI had been exporting adhesives to Asia since the 1960s and had built up a market share in the region. NSI had been exporting powder (dry) adhesives in increasing amounts to the area since 1961. In 1966, NSI was granted a 60 per cent guarantee cover from the Guarantee Institute for Export Credits (GIEK) for export of industrial adhesives to Singapore.[584] By the end of the 1960s, NSI's position on the Asian adhesives market was threatened for various reasons, and its future involvement in the area was uncertain. NSI's competitive position in what the company labelled the 'Far East' market, and its interest in maintaining this position, was the primary reason behind its decision to invest in Singapore. By the time of the investment, NSI held a strong position in the market for phenol powder adhesive, which is dried and therefore easier to transport. In comparison, its position in the liquid urea adhesives market was far weaker, and this type of adhesive was growing in popularity over dried adhesives. Liquid adhesives were harder to transport, and could only be stored for two to four months.[585] A local factory was thus crucial to securing a strong market position, and NSI did not believe that it would be able to maintain the position it had gained in the market unless it made an FDI.

NSI had experience from Singapore through export, but also through a vinyl floor tile factory it had helped to establish in 1964. The know-how for the factory was licensed from NSI and it had helped in the start-up phase of the production. At the time, NSI felt that the agreement to cooperate on this factory, "[…] represents a new step in Norsk Sprængstofindustri's export where we gain direct contact with a distant market […]".[586] The participation in the establishment and start-up of this factory contributed towards increasing NSI's knowledge of the country.

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[584] 1967. 20/4-67. *Garantiinstiuttet for eksportkreditt: Aa-0006.*
[585] Magnus, M. 1966: 280-285.
[586] 1964. "Norsk gulvflisprodusent inngår lisensavtale i Singapore", *Spinas Nytt:* nr. 1. NTNU Universitetsbiblioteket.

Increasing competition on the adhesives market in the Southeast Asian countries also threatened NSI's market position in the region. NSI would be at a competitive disadvantage due to the long distance and high transport costs. In addition, in the post-war period, Norwegian shipping had gone from being a low labour cost to high labour cost industry.[587] Furthermore, NSI identified a new Japanese formalin and adhesives factory in Singapore as being potential local competition. This Japanese factory had not taken market shares from NSI by 1969 because an increase in the market had offset the increase in adhesives production created by this factory. The local factory from Japan was also, according to NSI, not known for producing high-quality adhesives. Although this factory had not yet affected NSI's market shares, it was feared that this could occur in the future unless a local factory was built.[588]

In addition, two Norwegian companies, Jotun, and Norse Crown, were in the process of jointly establishing a urea adhesives factory in Kuala Lumpur, Malaysia. This was seen as another potential competitor by NSI. Norse Crown was a Norwegian trade company focusing on chemical and pharmaceutical production that had factories in Kuala Lumpur, Bangkok, and Singapore. Jotun produced paint and vanishes, and had established a subsidiary in Bangkok.[589] The two companies had minimal previous experience with the production of industrial adhesives, but they had hired a former worker from NSI in Norway to be responsible for the know-how in the new factory.[590] This factory opened in Malaysia in March 1970 and sold adhesives to local plywood factories.[591] There were also rumours circulating that BASF, the German chemical company, was in the process of planning an adhesives factory in East Asia.[592]

In regard to its own position, NSI argued that, "Regarding formalin and adhesives, our exports have often encountered obstacles due to the establishment of national

[587] Brautaset, C., & Tenold, S. 2008. Globalisation and Norwegian shipping policy, 1850–2000. *Business History*, 50(5), 565-582.
[588] 1969-70. Spinas Nytt: Vinter. *Dyno: Nr 11, 150.212:152.2-929.*
[589] Harben C. A. 1969. Norway Keen to Invest in Region. *The Straits Times,* May 18th.
[590] Interview with Halvorsen, August 2015.
[591] 1971. Glue plant plans $1.7 mil expansion. *The Straits Times*, 5 July.
[592] 1969. Markedsoversikt. *Dyno: Styrende organ etter nøkkel nr. 34, 114 styret.*

productions. We expect this trend to continue".[593] The potential competition is mentioned several times in documents from the board. Although NSI had yet to lose market shares to its competitors, the company feared that its export products would struggle in the near future due to the establishment of local factories. "If our company does not establish a local production, we must run the risk of losing our present position".[594] NSI saw it as a realistic possibility that it would lose its position in the Asian adhesives market if it did not establish local production.[595] Southeast Asia was seen as an essential market for NSI, and one that it would take risks to keep. In this case, the risk of losing a valuable market was deemed as higher than the risks involved in establishing a factory in Singapore.

The primary driver for the investment was thus the fear of losing market shares due to increased competition and changing preferences in the adhesives market. However, this did not mean that NSI was prepared to go through with the investment regardless of risk, and the board established several requirements and demands before the investment decision was taken. One general condition, both for the FDI in Singapore and for other FDIs was that, "The expected return on investment is significantly better than what is achievable with investments in Norway".[596] NSI wanted investments that would bring about financial advantages that would be greater than those that could be obtained through a less risky investment in Norway. Another requirement for the investment in Singapore was that it would gain pioneer status or similar financial conditions, as this would grant NSI a tax exemption. Finding an appropriate plot for the factory was set as another requirement, as was gaining insurance from the Norwegian Guarantee Institute for Export Credits (GIEK) against political risks.[597] NSI feared that not investing in the region would mean it would lose market share and profit, but it was not willing to risk investing without having risk management plans in place.

[593] 1970. Representskapsmøte 8. april 1970. *Dyno: Styrende Organ etter nøkkel Nr. 5, 111/113*.
[594] 1969. Styremøte 5. 6. Lim- og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr. 32, 114.*
[595] 1969. Markedsoversikt. *Dyno: Styrende organ etter nøkkel nr. 34, 114 styret*.
[596] 1969. Styremøte 22.12 - Singaporeprosjektet. *Dyno: Styrende organ etter nøkkel nr. 32, 114 styret*.
[597] Ibid.

*5.3.1.1 Market research and expectations*

NSI conducted extensive market research in preparation for the investment in Singapore. This research was carried out to a more considerable extent than that done for the previous investment in Germany, and thus it was stated that the investment decision was based on "extensive market research".[598] NSI researched the potential benefits of the investment, and several risks were identified. Research was also done on the expected production capacity, expected market growth, and the financial expectations for the factory.[599]

The core output of the research was a feasibility study conducted by the Norwegian consultancy firm, Norconsult. This feasibility study was further discussed with local consulting firms in Singapore.[600] The study was supported by Norad, the Norwegian Agency for Development Cooperation, which covered 50 per cent of the costs.[601] The feasibility study looked at issues such as investment costs, the cost of civil engineers in Singapore, and transportation costs versus production costs locally for building parts. The study also expressed that, "[…] some delays must be foreseen on a project to be executed in a country so remote from Norway".[602] Norconsult recommended that NSI accounted for this in its decision-making, and plan for a more extended building process compared to what was normally seen as necessary.[603]

NSI's research also focused on the potential purchasers of industrial adhesives produced in Singapore. The study concluded that there were many potential purchasers, and that the primary consumers were expected to be the plywood factories in the area. The study focused mainly on the countries of Singapore, Malaysia, and Thailand, as NSI considered growth in the plywood industry to be "especially strong"

[598] 1969. Representantskapsmøtet 22.desember. Lim-og formalinfabrikk i Singapore. *Dyno: Styrende Organ etter nøkkel nr. 5, 111/113.*
[599] 1969. Syntetic Resin Plant. Singapore. *Received on mail from Norconsult.*
[600] 1969. Styremøte 29.8 -Lim-og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr. 32, 114 Styret.*
[601] 1969. Direktoratet for Norsk utviklingshjelp, 13. August 1969. *Direktoratet for Utviklingshjelp (NORAD): Da-L0799.*
[602] 1969. Syntetic Resin Plant. Singapore. *Received on mail from Norconsult.*
[603] Ibid.

in these countries.[604] Most of the plywood factories in the three countries were expanding in 1969, and the use of adhesives was thus expected to increase. Singapore had five plywood factories in 1969, while Malaysia had 16. Out of the three countries, Singapore was expected to be the biggest purchaser of adhesives in the future. This contributed to NSI's selection of this country for its investment. According to the research, the use of liquid urea adhesives for the plywood industry in Singapore, Malaysia, and Thailand was expected to increase from 16,000 tons in 1969 to 24,000 tons in 1971. Cambodia, South Vietnam, and Burma were seen as other potential markets for the adhesives produced by NSI in Singapore.[605] The majority of the plywood produced in East Asia was exported to the USA and Great Britain.[606]

Both NSI's research and the feasibility study indicated that there was a large potential market in Singapore for adhesives, provided the quality was high. The sales expectations for the factory in Singapore were thus high. The majority of the consumption of adhesives in Singapore and surrounding countries was, at the time, covered by import.[607] NSI had been exporting industrial adhesives to Singapore, Malaysia, and Thailand prior to the decision to invest in Singapore, and it thus had existing experience and relationships in the region. Furthermore, NSI's export to the three countries had experienced a steady increase between 1966 and 1969. NSI expected that the factory would make a profit after a relatively short production period; specifically, the factor was expected to produce an income of approximately 21 million NOK after only five years.[608] The anticipated sales, sales increase, and income between 1970 and 1974 for urea adhesives, phenol adhesives, and formaldehyde are presented in the tables below. Urea adhesives and phenol adhesives are different types of adhesive, while formaldehyde is a necessary compound for adhesives production. The tables demonstrate the high expectations NSI had regarding the profitability of its investment.

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[604] 1969. Representantskapsmøtet 22.desember. Lim-og formalinfabrikk i Singapore. *Dyno: Styrende Organ etter nøkkel nr. 5, 111/113.*
[605] Ibid.
[606] 1969. Styremøte 5. 6. Lim- og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr. 32, 114.*
[607] 1969-70. Spinas Nytt: Vinter. *Dyno: Nr. 11, 150.212:152.2-929.*
[608] 1969. Representantskapsmøtet 22.desember. Lim-og formalinfabrikk i Singapore. *Dyno: Styrende Organ etter nøkkel nr. 5, 111/113.*

**Table 4:** Expected sales in tons (December 1969)[609]

| | |
|---|---|
| **Liquid urea adhesives 1970** | 6,250 |
| **Liquid urea adhesives 1974** | 12,800 |
| **Liquid phenol adhesives 1970** | 4,700 |
| **Liquid phenol adhesives 1974** | 15,000 |

**Table 5:** Expected income from sales in 1000 NOK (June 1969)[610]

| | *1970* | *1971* | *1972* | *1973* | *1974* |
|---|---|---|---|---|---|
| *Liquid urea adhesives* | 3,800 | 7,520 | 9,270 | 10,570 | 12,000 |
| *Liquid phenol adhesives* | 4,630 | 6,130 | 7,000 | 7,610 | 8,300 |
| *Formaldehyde* | 500 | 600 | 650 | 700 | 750 |
| *Total* | *8,930* | *14,250* | *16,920* | *18,880* | *21,050* |

NSI did discuss investing in other Asian countries, primarily Malaysia and Thailand, but the final decision was to invest in Singapore. Besides being one of the larger purchasers of industrial adhesives, Singapore was selected because it had a better political climate, from both a business and wider economic perspective, than the surrounding countries. The leadership in the plywood factories in Singapore was also seen as more dynamic and export-oriented than in Malaysia and Thailand.[611] Of the East Asian countries being considered for the investment, Singapore was seen as having the least associated risks. The decision to invest in Singapore rather than any of the surrounding countries can be seen as a risk-management strategy. NSI might also have been influenced by the fact that other Norwegians had established themselves in Singapore. The country was an important port for the Norwegian

[609] 1969. Representantskapsmøtet 22.desember. Lim-og formalinfabrikk i Singapore. *Dyno: Styrende Organ etter nøkkel nr. 5, 111/113.*
[610] 1969. Styremøte 5. 6. Lim- og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr. 32. 114.*
[611] Ibid.

shipping industry, and other Norwegian firms related to shipping had already established themselves in Singapore.[612] There was also a Norwegian Church Abroad (Sjømannskirke) and around 70 Norwegians lived in the country in 1967.[613] According to former managing director of NSI, Ragnar Halvorsen, it was also easier to invest in Singapore because the laws in Singapore were very similar to British laws.[614]

NSI was prepared to establish production in the countries surrounding Singapore if restrictions were implemented on its export from Singapore. "In an area like Southeast Asia, with increasing industrialisation in every country, significant prohibitive tariff barriers could easily arise".[615] NSI was prepared to establish factories in Malaysia and Thailand if necessary, but Indonesia was also mentioned as a possibility if the market developed toward this. Indonesia was expected to have the strongest future development, because conditions in the country had become sufficiently stable for an industrial establishment, and NSI was prepared to change its future FDI plans if Indonesia showed an increasing need for industrial adhesives.[616] Indonesia became the next Asian country to which Dyno's industrial adhesives production expanded. It is clear that NSI was expecting the FDI in Singapore to be a successful investment, and it was extremely committed to the investment once the decision was taken. Singapore was seen as the safest choice, but there was also a contingency plan if the political environment in Singapore changed and new tariff barriers prohibited export.

### 5.3.2 The investment

The factory in Singapore was a green field investment. The ownership of the factory was a joint venture, with NSI as the majority owner: NSI held 65 per cent of the share capital; the Development Bank of Singapore held 25 per cent; and NSI's agent in Singapore, Mr Mok Ah Leong, held the remaining 10 per cent.[617] A joint venture was

[612] Interview with Halvorsen, August 2015.
[613] Gisnås, L. 1995: 85.
[614] Interview with Halvorsen, August 2015.
[615] 1969/70. "Dyno Industrier Pte.Limited" *Spinas Nytt: Vinter*. NTNU Universitetsbibliotek.
[616] Ibid.
[617] 1970/71. "Større Norsk-basert industrianlegg" *Spinas Nytt: Vinter*. NTNU Universitetsbibliotek.

selected for several reasons, such as reduction of risks and because it was a requirement for gaining tax exemptions.

The main participant in the joint venture was the Development Bank of Singapore. The bank was established in 1968 with the aim of helping finance Singapore's industrialisation by providing loans to manufacturing and processing firms that set up new industries or upgraded existing factories.[618] The Development Bank of Singapore cooperated in several investments that were set up in the country in the early 1970s. In 1972, the bank was involved with 48 companies, encompassing industries from fisheries, to chemical industries and hair-wig production.[619] The second participant in the joint venture, Mr Mok Ah Leong, was initially intended to only receive a symbolic share of the capital, with amounts up to one per cent discussed.[620] This was later increased and NSI granted Mok Ah Leong a loan so that he could purchase 10 per cent of the shares and become a shareholder. NSI had long-standing experience with Mok Ah Leong as its agent in Singapore, and he was someone the company considered trustworthy. However, the relationship between NSI/Dyno and Mr. Mok Ah Leong fell apart due to his private financial situation.[621] Dyno and the Development Bank of Singapore bought Mok Ah Leong out of the company just a few years later. Dyno thereafter became the owner of 73.8 per cent of the shares, while the Development Bank of Singapore continued to hold the rest.

Although the result of this investment plan was that NSI became the majority shareholder in a joint venture with local interests, other options were also discussed. The primary option that was considered was a collaboration between NSI and the Norse Crown–Jotun collaboration. As already discussed, Norse Crown and Jotun comprised the other Norwegian collaboration that was in the process of establishing an adhesives factory in East Asia. The option of a further collaboration, on a 50/50 basis, was discussed in 1969. Both the Norse Crown-Jotun collaboration and NSI

[618] Development Bank of Singapore. [Online] Available: http://eresources.nlb.gov.sg/infopedia/articles/SIP_2015-12-01_132040.html [Accessed 04/01/2018].
[619] 1972. "DBS has a stake in 48 developing companies". *The Straits Times*, 1 December.
[620] 1969. Styremøte 5. 6. Lim- og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr. 32. 114.*
[621] Interview with Halvorsen, August 2015.

agreed that some sort of collaboration would be desirable and advantageous,[622] as it would have limited some of the competition between the two factories. It would also potentially have limited some of the risks, because NSI would only have owned 50 per cent of the investment. Norse Crown and Jotun also had previous experience with FDIs in Southeast Asia that could have contributed useful regional knowledge to the investment. However, the plans for a collaboration discussed in 1969 were never developed any further, and both companies later built separate factories. The Norse Crown-Jotun factory opened in Malaysia in 1970 under the name Norse Chem.[623] However, the factory lacked the knowledge needed to produce quality industrial adhesives and thus never became a real competitor to NSI's production in Singapore.[624]

NSI decided on a joint venture for the investment in Singapore for two reasons. The first reason was that a joint venture limited risks, as the responsibility was shared over more stakeholders. A joint venture with local shareholders also contributed to increased local knowledge and a closer connection to the government through the participation of the Development Bank of Singapore. The second reason for NSI's selection of a joint venture was that this was a requirement for gaining the advantageous 'pioneer' status. Singapore's general rule was that at least 35 per cent of the share capital had to be owned by local interests for an FDI to achieve this status.[625] However, a Norwegian fishhook factory that was established in Singapore in 1972 gained this status without establishing a joint venture with local participation; they were granted this because their products would create export and thereby increase foreign currency.[626] However, NSI's factory would primarily produce for the local market and it was thus required to follow the ownership rules in order to gain pioneer status. The authorities in Singapore had already promised to grant Dyno Industries Singapore Ltd this status in 1969, and it was seen as a great advantage for the

[622] 1969. Styremøte 5. 6. Lim- og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr. 32. 114.*
[623] 1973. Investeringer i utlandet. *Norges industriforbund: 965.*
[624] Interview with Halvorsen, August 2015.
[625] 1969. Styremøte 5. 6. Lim- og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr. 32, 114.*
[626] 1972. Singapore – Investering i fiskekrokfabrikk. *Direktoratet for utviklingshjelp (Norad): Da-L0793.*

subsidiary. The pioneer status meant that NSI's subsidiary in Singapore would receive full tax exemption during its first five years of existence. Without this agreement, the corporation tax payment would have been 40 per cent.[627] The pioneer status also gave NSI favourable depreciation regulations and a special tax exemption on income from export even after the initial five-year period.[628] Besides the ownership requirements, there were certain other conditions required by the pioneer certificate, including that production had to start by March 1970 and that a minimum of 30 per cent of the production during the pioneer period had to be exported. However, the start date for the production was later postponed without consequences. NSI also requested that the export percentage should be calculated as an average for the five years, rather than as an annual requirement, which was agreed.[629] NSI had including gaining the pioneer status, or similar investment conditions, as one of the requirements that must be met before going ahead with the investment.[630]

#### *5.3.2.1 Financial involvement*

The investment in Singapore was a significant investment for NSI. Financially, the investment was much larger than the company's previous investment in West Germany. The expectations for income from the factory were thus comparatively high. The expected construction costs for the factory were between 7.3 and 7.8 million NOK in 1969.[631] This was later increased to 8.4 million NOK.[632] The actual total investment costs, including start-up costs and working capital, was 15 million NOK.[633] This equates to roughly 129 million NOK in 2015 values, or approximately £12 million.[634] Comparatively, in 1969, NSI's expected return before tax was 14.3 million NOK.[635]

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[627] 1969. Styremøte 5. 6. Lim- og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr. 32, 114.*
[628] 1969. Representantskapsmøtet 22.desember. Lim-og formalinfabrikk i Singapore. *Dyno: Styrende Organ etter nøkkel nr. 5, 111/113.*
[629] 1969. Economic Development Board. Direktoratet for Utviklingshjelp (NORAD): Da-L0799.
[630] 1969. Styremøte 22.12 - Singaporeprosjektet. Dyno: Styrende organ etter nøkkel 32, 114 styret.
[631] 1969. Styremøte 29.8 -Lim-og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel 32, 114 styret.*
[632] 1969. Representantskapsmøtet 22.desember. Lim-og formalinfabrikk i Singapore. *Dyno: Styrende Organ etter nøkkel nr. 5, 111/113.*
[633] 1970/71. "Større Norsk-basert industrianlegg" *Spinas Nytt: Vinter*. NTNU Universitetsbibliotek.
[634] SSB. *Konsumprisindeksen, priskalkulator* [Online]. Available: http://www.ssb.no/priser-og-prisindekser/statistikker/kpi/maaned/2016-11-10?fane=tabell#content. [Accessed 13/04/2015].
[635] 1969. Referat fra styremøtet i Norsk Sprængstofindustri 22.12,1969. *Dyno: Styrende organ etter nøkkel nr. 32, 114 styret.*

The investment was thus a relatively large FDI based on NSI's expected income. NSI's financial involvement in the production plant was 3.9 million NOK, which was primarily financed through share capital. The Development Bank of Singapore had also promised NSI a loan that had to be repaid over seven years. NSI would receive approximately 300,000 NOK for the sale of know-how relating to the building process. On top of this, NSI would receive a running royalty of three per cent of sales for the first five years after commercial production commenced. Furthermore, NSI was to be responsible for the building of the factory. For this, it would receive remuneration calculated after full cost and a management fee of two per cent of the construction costs in Singapore.[636]

The factory was constructed on a 17-acre site next to a deep-water quay. This meant that NSI would save on expensive carrier transportation, and the size of the plot also created the opportunity for possible expansion of the factory in the future. Again, access to an appropriate site for the factory was one of NSI's requirements before deciding to commence with the investment.[637] The factory was a fully integrated factory, which would produce industrial adhesives and formalin. The formalin would primarily be used by the subsidiary itself, but would also partly be produced for sales. The factory required approximately 30 workers, most of whom would come from Singapore, but two were Norwegians with experience at NSI in Norway.[638]

As already discussed, NSI decided to invest in Singapore because it was seen as the country in the Southeast Asian region with the least risk-filled political climate. A further political risk-mitigation strategy for NSI was the guarantees from the GIEK against political risk. This insurance covered any losses the company might experience due to nationalisation, confiscations, wars, and other political factors. This insurance diminished the risks involved with investing in a culturally and physically distant country. As such, these guarantees from the GIEK were included as one of the requirements set by NSI prior to deciding to invest.[639] NSI had used the GIEK

[636] 1969. Representantskapsmøtet 22.desember. Lim-og formalinfabrikk i Singapore. *Dyno: Styrende Organ etter nøkkel nr. 5, 111/113*
[637] 1969. Styremøte 22.12 - Singaporeprosjektet. *Dyno: Styrende organ etter nøkkel 32, 114 styret*.
[638] 1969/70. "Dyno Industrier Pte.Limited" *Spinas Nytt: Vinter*. NTNU Universitetsbibliotek.
[639] 1969. Styremøte 22.12 - Singaporeprosjektet. Dyno: Styrende organ etter nøkkel 32, 114 styret.

guarantees to insure its export to Singapore previously, and was familiar with the guarantee scheme before it made an application for the FDI in Singapore.[640]

NSI was granted the insurance against political risk, but the application generated some discussion within the GIEK. NSI wanted the insurance to cover the guarantees it had given for the loan from the Development Bank of Singapore, taken by the subsidiary in Singapore.[641] It was not explicitly stated in the GIEK's statutes whether this would be possible. It was thus decided that the statutes needed to be changed before NSI's request could be granted. This led to several rounds of discussions, which put extra stress on NSI, as the decision from the GIEK had still not been taken over six months after the initial application.[642] Finally, it was decided that guarantees given for a loan to a subsidiary could face the same political risks as a regular loan to a subsidiary,[643] and it was therefore agreed that guarantees for loans would be covered under certain extra conditions. The statutes were changed and stipulated that, "Provided that there will be granted guarantees for the investor's investment in the form of equity capital, the investor's guarantee for credit to the relevant enterprise can also be subject to guarantee coverage," were added. The extra conditions set for such guarantees focused on the investor's and the investment's relationship with the local state-financed bank. The aim was to ensure that the local government would not profit from nationalisation as a result of the guarantees.[644] Together, GIEK and Norad decided that,

> *The Institute will, as a preventive measure, demand that it will be set as a condition in the guarantee to the public lender that the political risk guarantee shall not apply if the subsidiary is nationalised, confiscated, etc.*[645]

In NSI's case, the lender was the Development Bank of Singapore, of which the Singapore state owned 48.8 per cent.[646] The GIEK wanted to ensure that in the case

[640] 1967. Styrets møte Onsdag 27 september 1967. *Garantiinstituttet for eksportkreditt: Aa-0006.*
[641] 1970. Forslag om endring av §12. Garantiinstituttet for eksportkreditt: Da-0005.
[642] 1970. Norsk Sprængstofindustri A/S, Oslo - Søknad om investeringsgaranti mot politisk risiko ved etablering av limfabrikk i Singapore. Brev fra Halvorsen. *Direktoratet for utviklingshjelp (NORAD): Da-L0799.*
[643] 1970. Vedtekstendring. *Direktoratet for utviklingshjelp (NORAD): Da-L0761.*
[644] 1970. Forslag om endring av §12. *Garantiinstituttet for eksportkreditt: Da-0005.*
[645] 1970. Vedtekstendring. *Direktoratet for utviklingshjelp (NORAD): Da-L0761.*
[646] 1969. Utv.g. nr. 13-1969. *Garantiinstituttet for eksportkreditt: Da-0005.*

where the local state nationalised the NSI factory in Singapore, the state-owned Development Bank could not expect the guarantees given from NSI on the loan to the subsidiary to be covered by the GIEK guarantees.

Eventually, NSI was granted the insurance, but with a significant time delay. The guarantees from the GIEK insured both the invested share capital of 2,730,000 NOK and the guarantees for the loan of 4,700,000 NOK.[647] The guarantees thus covered 90 per cent of NSI's investment. This was decreased by 5 per cent annually after the first year of production, and the guarantee period was set at 20 years. NSI had also applied for a guarantee to cover its local participant, Mr Mok Ah Leong, but this application was rejected.[648] In the guarantee application by NSI, it was highlighted that the investment would not have any adverse effect on the Norwegian economy or for Norwegian labour. NSI argued,

> *Project impact on the business at our Norwegian companies is expected to be very insignificant, as the failure of exports that will be caused by local production in Singapore, will be rapidly absorbed by exports to other overseas markets.*[649]

The strong emphasis on this in the application was due to the Norwegian government's view of outward FDIs as synonymous with loss of jobs abroad.[650]

The investment in Singapore was a large financial investment for NSI, but the political risk of investing in Singapore was, to a large degree, offset by the guarantees from the GIEK. Besides those, the pioneer status, which came with tax exemptions, and the tax agreement between Norway and Singapore from 1963, played an important role in the financial security of the investment.[651]

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[647] 1970. Norsk Sprængstofindustri A/S, Oslo - Søknad om investeringsgaranti mot politisk risiko ved etablering av limfabrikk i Singapore. *Direktoratet for utviklingshjelp (NORAD): Da-L0799.*
[648] 1970. Møte i det utvidete styre torsdag den 5.mars 1970. *Garantiinstituttet for eksportkreditt: Da-0005.*
[649] 1970. Norsk Sprængstofindustri A/S, Oslo - Søknad om investeringsgaranti mot politisk risiko ved etablering av limfabrikk i Singapore. *Direktoratet for utviklingshjelp (NORAD): Da-L0799.*
[650] Interview with Halvorsen, August 2015.
[651] Ibid.

### 5.3.3 From the investment onward

On 3 November 1970, Dyno Industries Singapore produced its first industrial adhesive. The factory had a capacity of 24,000 tons of formaldehyde, 12,000 tons of urea adhesives, and 12,000 tons of phenol adhesives annually.[652] The factory had already made a profit by 1972.[653] NSI's investment in the industrial adhesives factory was so successful that it decreased the guarantee at a faster rate than the originally agreed 5 per cent. NSI, which became Dyno in 1972, was also able to pay dividends of 10 per cent in 1972, and this had been increased to 30 per cent by 1973.[654] Dyno continued to expand in Singapore and Asia. In 1976, the factory expanded to include production facilities for alkyds for industrial paint, and polyester for use in fiberglass.[655] The GIEK's statutes stated that, "provided that the investor undertakes new investment of profits collected from an earlier investment under the Guarantee-Institutes guarantees, such investments can fall under the guarantee coverage […]". Dyno was thus granted guarantees from the GIEK for the expansion in 1976.[656] In 1978, a second factory, producing polystyrene, was set up by Dyno in Singapore.[657]

The successful investment in Singapore convinced NSI/Dyno to continue with FDIs in Asia. NSI discussed the possibility of purchasing 5 per cent of the shares in a consortium created with the purpose of investing in a failing paper-production company in Indonesia in 1970. Two Norwegian and one local investor had established the firm, P.T. Guru Indonesia, in 1969,[658] and by 1970, the firm was struggling financially and was in need of support. Several Norwegian investors were asked to participate in what has later been described as a hazardous investment.[659] NSI saw the participation as risk-filled, but also with possibilities for high profit in the future. The investment could also offer NSI a valuable potential foothold in Indonesia, and contribute to increased opportunities for independent FDIs within industrial adhesives production. Like NSI's investment in Singapore, insurance from the GIEK against

[652] Halvorsen, R. 2000: 175.
[653] 1969/70. *Spinas Nytt*, Vinter. NTNU Universitetsbibliotek.
[654] 1975. Styrets møte 18/12. *Garantiinstiuttet for eksportkreditt: Aa-0023.*
[655] 1978. "Singapore-Smørøye for norsk industri". *Dagbladet: 11/03/1978.*
[656] 1975. Møte i utvidet styre 18/12 1975. *Garantiinstiuttet for eksportkreditt: Ab-0006.*
[657] Gisnås, L. 1995: 132.
[658] 1970. GURU/INDONESIA. *Dyno: Styrende organ etter nøkkel nr. 32, 114 Styret.*
[659] Gisnås, L. 1995: 130.

political risk was set as a requirement for all Norwegian involvement in this company.[660] The investment, and NSI's potential contribution, was not significant in any way, but it demonstrated the company's intention to continue with FDIs in the region.

NSI/Dyno's next investment in Asia was in 1973, when it entered into a collaboration with the German engineer, Gerhard Bluemmers, to build an adhesives factory in Medina, Indonesia. The investment was described by Dyno as "[…] a natural expansion of our investment in Singapore".[661] Bluemmers had 10 years' experience of working in Indonesia and was the manager of a plywood factory in the country. The shares were split 50/50 between the two participants, and Dyno would receive licensing revenue from the factory. The factory was built on the same principles as the factories Dyno had previously established in Denmark and Finland in 1972.

Dyno was somewhat sceptical about Bluemmers, who was rumoured to have left a previous company due to 'unknown irregularities'. Dyno said about the issue, "Because of this, we therefore consider there to be some risk associated with entering into a partnership with him, but this is not decisive for us".[662] Investments in Indonesia were also seen as risky due to the unstable political and economic climate. Currency transfer was another risk related to investing in Indonesia highlighted by Dyno. However, Dyno's conclusion was that, although the investment was different from its Western European investments, it was worth the risks. The financial risks were seen as low, since it was a relatively small project with only 600,000 NOK invested. According to Dyno, "The financial risk that we run is considered to be manageable".[663] Dyno would also gain licensing revenue from the factory, together with increased sales of formalin from the production in Singapore. However, the most important reason the investment was seen by Dyno as being worth the risk was that it would make them the owners of the first adhesives factory in Indonesia. This was believed to be of

[660] 1970. GURU/INDONESIA. *Dyno: Styrende organ etter nøkkel nr. 32, 114 Styret.*
[661] 1972. Limfabrikk - Indonesia. *Dyno: Styrende organ etter nøkkel nr. 36, 114 Styret.*
[662] Ibid.
[663] 1972. Limfabrikk - Indonesia. *Dyno: Styrende organ etter nøkkel nr. 36, 114 Styret.*

importance since Dyno would potentially gain valuable experience and knowledge of Indonesia that could be transferred to other industries in the country.[664]

Dyno continued to be involved in Asia for years to come, and by 1988 Dyno Industries employed over 100 workers in different factories. A headquarters for Dyno's operations in the rest of Asia was also established in Singapore that year.[665]

## 5.4 England 1971

Grubernes Sprængstoffabriker, the second of the companies that merged into Dyno in 1972, made its first FDI to England the year before the merger. Grubernes took over the English plastic-sprayer producer, Cooper, Pegler & Co., on 1 January 1971.[666] Grubernes' first international expansion was an acquisition of a company that wanted to sell, and of a company that Grubernes knew. Grubernes and Norsk Sprængstofindustri decided to merge in October of the same year, and Dyno continued to own Cooper, Pegler & Co. until 1995, when it was sold to a Danish company. Dyno sold the company after deciding to concentrate on industries within its core business area. Cooper, Pegler & Co was just one of many firms that Dyno sold in the mid-1990s.[667] The following sub-sections will examine Grubernes' first investment abroad, the background for the investment decision, and the investment itself.

### 5.4.1 Background to the investment

Cooper, Pegler & Co. Ltd. (hereafter Cooper) was formed in 1894 with a factory and an office in Sussex, England. The company developed, produced, and sold spraying equipment for use on farms and in industry. It did not produce any of the components for the sprayers, but bought these from a variety of producers. This is how Cooper first encountered Norwegian plastic producers. Cooper bought parts for its sprayers from the Norwegian company Per Thorkildsen Plastic, which Grubernes had acquired.

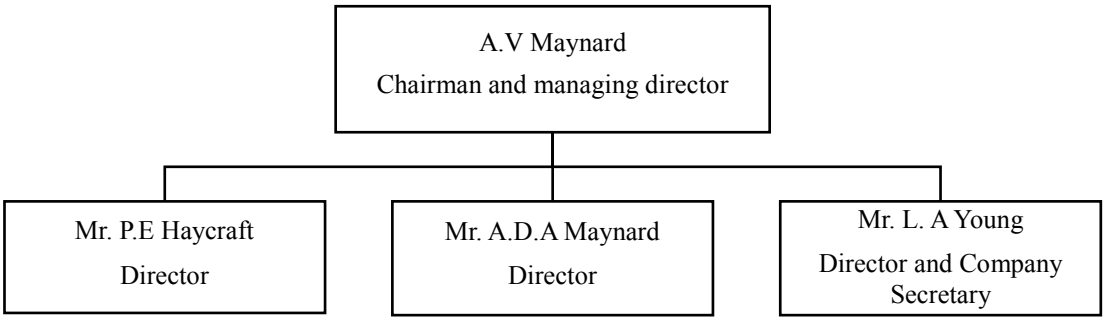
[664] 1972. Limfabrikk - Indonesia. *Dyno: Styrende organ etter nøkkel nr. 36, 114 Styret.*
[665] 1988. "Firms that kept faith through thick and thin". *Business Times*, 18.05.88: 37.
[666] 1970. Overtagelse av Cooper, Pegler & Co. Ltd., Sussex, England. *Grubernes Sprængstoffabriker A/S: Bilag til styreprotokoller 1969-1970 nr. 3/24, 150.212:114.31.*
[667] Halvorsen, R. 2000: 310-311.

Grubernes and Cooper therefore had an existing trade agreement prior to the acquisition.[668] In 1969, when Grubernes was first contacted about the possible acquisition, Grubernes was delivering plastic components to Cooper worth approximately 500,000 NOK annually.[669] In addition, Norway and the UK have a long history of trade and political collaboration, and Great Britain has been one of Norway's greatest trade partners. The most important products traditionally exported from Norway to Great Britain have been seafood, metals, cardboard, paper, iron, and steel. By year 2000, over 300 Norwegian businesses had established themselves in Great Britain.[670]

Cooper was a small private company, where the managing director, Mr Alex Maynard (age 63), held the majority share. A Mr Haycraft (age 61) was the other director of the company. The company was therefore heavily dependent on two directors both approaching retirement age, and there was no obvious successor within the firm; this was the reason stated for seeking to sell the company. The friendship between the company and Thorkildsen, the managing director of Per Thorkildsen Plastic in Norway, was given as the reason for why the Norwegian company was the preferred new owner.[671] Both of the managing directors would continue to be involved in the company until a new director could be adequately trained to take over, thus ensuring a continuation of the knowledge needed to run the firm.

[668] Halvorsen, R. 2000: 310-311.
[669] 1970. Overtagelse av Cooper, Pegler & Co. Ltd., Sussex, England. *Grubernes Sprængstoffabriker A/S: Bilag til styreprotokoller 1969-1970 nr. 3/24, 150.212:114.31.*
[670] Utenriksdepartementet. 2001. *Norge og Storbritannia.* Regjeringen.no, Oslo.
[671] 1970. Overtagelse av Cooper, Pegler & Co. Ltd., Sussex, England. *Grubernes Sprængstoffabriker A/S: Bilag til styreprotokoller 1969-1970 nr. 3/24, 150.212:114.31.*

**Figure 2:** Organisational Chart for Cooper, Pegler and Co., in September 1970.




*5.4.1.1 Market research and expectations*

"The new sprayer C.P.3 is, quality wise, a Rolls Royce among sprayers".[672]

Market research was a part of the preparations for Grubernes' acquisition of Cooper. Grubernes conducted research on the firm, and on the benefits and the risks of investing, before making the decision. The company also hired an accounting firm to look into the finances and assess the asking price. The focus of the market research was on local and foreign competition, the impact of a new type of sprayer that was being planned, and the potential income from the acquisition.[673]

A significant proportion of the research focused on the potential competition the plastic sprayers produced by Cooper could expect to encounter. The conclusion was that, in England, 10 other companies sold sprayers that were potential competitors to Cooper's best-known product, the C.P.3 sprayer. However, at the time of the acquisition, none of these was in direct competition with the C.P.3 sprayers because they produced for the garden market rather than for the industrial and farmer markets. Nevertheless, Grubernes was still concerned about the competition, as these firms had both the know-how and the equipment for making sprayers for use in farms and industry. Imported

[672] 1970. Fra. Cooper, Pegler & Co. Ltd. -Salg. *Grubernes Sprængstoffabriker A/S: Bilag til styreprotokoller 1969-1970 nr. 3/24, 150.212:114.31.*
[673] Ibid.

sprayers were seen as another potential source of competition. German, French, Swedish, and Japanese sprayers were all mentioned as potential competitors. However, foreign sprayers were affected by import duty and would therefore be more expensive than locally produced sprayers. The C.P.3 sprayer also had a greater storage capacity than the main foreign-produced sprayer.[674] Therefore, Grubernes was not overly concerned about the foreign competition for plastic sprayers, but rather about whether local producers would seek to enter Cooper's market.

Cooper also produced sprayers for export, and Grubernes also researched the competition in those markets. At the time of the acquisition, the sprayers were being exported to 60 countries.[675] The competition in foreign markets was, according to Grubernes, varied. Trade policy conditions had a substantial impact on the sale of sprayers abroad. German companies occupied a strong position in the former German colonies, and the French did likewise in former French colonies. However, Cooper had help from its agents abroad, and had experienced success with export due to the brand being known for its high quality.[676]

Grubernes also dismissed the potential foreign competition as a major risk because Cooper was in the process of developing a new and cheaper sprayer. A significant share of the market research done in advance of the acquisition focused on this sprayer, which was being developed by Cooper in cooperation with Per Thorkildsen Plastic. The sprayer would be cheaper, with only a few components and a short life expectancy of around three years; it was therefore nicknamed the 'throw-away' sprayer.[677] Thorkildsen had received support from the Development Fund in Norway for this work.[678] Grubernes saw a potential market for cheaper but good quality sprayers amongst poorer farmers, and this product was expected to supplement the profits the company was already making, as Cooper's main sprayer, the C.P.3, was sold in the upper price classes. According to Grubernes, there was no sprayer "[…] cheap enough

[674] 1970. Fra. Cooper, Pegler & Co. Ltd. -Salg. *Grubernes Sprængstoffabriker A/S: Bilag til styreprotokoller 1969-1970 nr. 3/24, 150.212:114.31.*
[675] 1970. Overtagelse av Cooper, Pegler & Co. Ltd., Sussex, England. *Ibid.*
[676] 1970. Fra. Cooper, Pegler & Co. Ltd. -Salg. *Ibid.*
[677] Ibid.
[678] 1970. Overtagelse av Cooper, Pegler & Co. Ltd., Sussex, England. *Ibid.*

and good enough" for low-income farmers.[679] A prototype was completed when Grubernes became the owner of Cooper, Pegler & Co., and full production started in March 1971. Grubernes believed the potential market for this new sprayer would be approximately 300,000 sprayers over the next four to five years.[680]

Another topic the research explored was the potential implications that the United Kingdom's application for entry into the European Economic Community (EEC) could have. Due to the discussions between the United Kingdom and EEC being in the early phases, the research did not yield any definitive answers regarding the implications of UK membership in the EEC for the firm, though it was suggested that this would most likely take place in early 1973 and that the transitional period would likely last for three years. It was expected that import duties from the EEC, which at the time was set at 9.25 per cent, would be abolished.[681] For Grubernes, this would mean that the protection against competition from imported sprayers would be eliminated. The advantages were that export from the UK to EEC would become cheaper, and Grubernes saw the UK's membership in the EEC as a way to increase export to Europe. In 1972, Cooper exported 63 per cent of its sales; most of this was to distant countries, with Africa being the main importer. None of the export was to the EEC countries at that time.[682]

### 5.4.2 The investment

Grubernes decided to make the acquisition of Cooper, Pegler & Co. as a wholly owned subsidiary. From a tax point of view, Grubernes was recommended to take over at least 95% of Cooper, Pegler & Co. This ownership structure meant that dividends transferred to Norway would be taxed at 45 per cent in England and 5 per cent in Norway.[683] However, Grubernes actually acquired all of the shares. Tax issues

[679] 1970. Fra. Cooper, Pegler & Co. Ltd. -Salg. *Grubernes Sprængstoffabriker A/S: Bilag til styreprotokoller 1969-1970, Nr. 3/24, 150.212:114.31.*
[680] Ibid.
[681] Ibid.
[682] 1972. Produksjonsselskaper i utlandet. Styremøte 6.6.1972. *Dyno: Styrende organ etter nøkkel nr. 36, 114.*
[683] 1970. Cooper, Pegler & Co. Ltd from Ildal, Waaler & Co. *Grubernes Sprængstoffabriker A/S: Bilag til styreprotokoller 1969-1970, Nr. 3/24: 150.212:114.31.*

appeared to be the main reason for the subsidiary being wholly owned, one of the very few such subsidiaries owned by Dyno. The risk assessment and potential income does not seem to have played an important role in this decision. Most of Dyno's other subsidiaries were joint ventures, where Dyno held anywhere from a majority to a minority share.

Grubernes' acquisition of Cooper, Pegler and Co. was a friendly acquisition, and several of the previous employees continued their work under Grubernes' leadership. The former chair, Mr Maynard, continued to be involved in the business as a consultant for the next few years, and Mr Haycraft continued as the managing director after the acquisition. Mr Young, the director of finance, had worked in the company for 32 years previous to the acquisition, and continued in the same position after Grubernes became the owner.[684] This meant that a large share of the knowledge obtained by the business previously remained in the business, which gave Grubernes time to gain its own knowledge about the production and sale of plastic sprayers. This likely was a substantial contributor to the success of the business following the acquisition.

The asking price for the total shares in Cooper, Pegler & Co. was £165,000, or £16.10 per share; this equalled 2,816,550 NOK at the time.[685] From a financial perspective, the investment was not large. In the research carried out before the acquisition it was concluded that the asking price was approximately £20,000 more than what was considered an appropriate price/earnings ratio.[686] Although the owners of Cooper, Pegler & Co., wanted to sell the company, and had expressed a preference that the company be sold to its Norwegian partners, they still wanted a high price. There was a standing offer from an English company for the asking price, and the owners was not willing to reduce the price for Grubernes.[687] However, the conclusion of the research done for Grubernes argued that,

[684] 1970. Fra. Cooper, Pegler & Co. Ltd. -Salg. *Grubernes Sprængstoffabriker A/S: Bilag til styreprotokoller 1969-1970, Nr. 3/24: 150.212:114.31.*
[685] 1970. Cooper, Pegler & Co. limited: 7 October. *Ibid.*
[686] 1970. Report on Cooper, Pegler & Co. Limited, 26th October. *Ibid.*
[687] 1970. Overtagelse av Cooper, Pegler & Co. Ltd., Sussex, England. *Ibid.*

> *In the light of all the circumstances and given that you see opportunities for the future in this acquisition we think you will be justified in paying the price asked for, as we understand the vendors will not accept a lower figure*.[688]

Evidently, the high asking price did not affect Grubernes' interests in Cooper, or its evaluation of the company's worth from a long-term perspective. In addition, the fact that the company's profits had fluctuated during the past five years, with a decline in the last three years, also did not seem to have a significant impact on Grubernes' decision. Grubernes was relying on an expected average net return on its capital of 14.3 per cent per year for the years between 1971 and 1974.[689] The expectations for the profitability of the company were high, and it appears that the aforementioned negative factors did not affect this view, and the focus remained on the possible profits the investment could generate. Grubernes created what it defined as "a very comprehensive" contract when it acquired Cooper, Pegler & Co., which covered Grubernes in the case of various negative eventualities. In most events of unforeseen problems, Grubernes would therefore be covered by this contract.[690] This contract was likely an important influence on how Grubernes viewed the financial risks involved in this investment.

There were several reasons why Grubernes decided to invest in this foreign firm, but one of the most important was the belief in the profitability of the investment. The managing director of Grubernes at the time, Brøndmo Jr., was expecting a minimum 10 per cent yield on the invested capital, and thus promoted the acquisition. In addition, Grubernes was also expecting to increase the sales from Per Thorkildsen Plastic in Norway to Cooper, Pegler and Co. to be worth somewhere between 1 to 1.5 million NOK. By contrast, if English interests had acquired Cooper, Grubernes would have lost its pre-existing sales agreement and thereby important sales from Per Thorkildsen Plastic in Norway.[691]

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[688] 1970. Cooper Pegler & Co. Limited: 7.Oktober. *Grubernes Sprængstoffabriker A/S: Bilag til styreprotokoller 1969-1970, Nr. 3/24: 150.212:114.31.*
[689] 1970. Overtagelse av Cooper, Pegler & Co. Ltd., Sussex, England. *Ibid.*
[690] 1971. Til styret: Cooper, Pegler & Co. Ltd. *Grubernes Sprængstoffabrikker AS. Styre/ Samarb.forh.: Bilag til styreprotokoller samarbeidskomiteen bedrfitsutvalge. Nr: 150.212_114.31-116.*
[691] 1970. Overtagelse av Cooper, Pegler & Co. Ltd., Sussex, England. *Grubernes Sprængstoffabriker A/S. Bilag til styreprotokoller 1969-1970 nr. 3/24, 150.212:114.31.*

**Table 6:** Turnover forecast (in £)[692]

| **Year ending 31st December** | Home | | Export | | Total | | Sales total |
|---|---|---|---|---|---|---|---|
| | Machines | Parts | Machines | Parts | Machines | Parts | |
| 1969 | 123,264 | 12,614 | 145,640 | 42,868 | 268,904 | 55,482 | 324,826 |
| 1970 | 93,590 | 23,227 | 173,387 | 31,183 | 266,977 | 54,410 | 321,387 |
| 1971 | 120,303 | 13,875 | 161,978 | 47,154 | 282,281 | 61,029 | 343,310 |
| 1972 | 130,614 | 12,500 | 205,624 | 40,000 | 336,238 | 52,500 | 388,738 |

As can be seen from the table, the forecasted sales were expected to increase in 1971 and 1972, after initially decreasing immediately following the takeover. Grubernes expected the investment to be consistently profitable and had high expectations for the acquisition. In addition to the expected profits from the acquisition, Cooper was also seen as an "ideal" starting point for further sales in the United Kingdom.[693]

### 5.4.3 From the acquisition onward

On 1 January 1971 Grubernes took over Cooper, Pegler and Co., and the firm had accomplished its first FDI. Grubernes' focus prior to making the decision to commence with the acquisition had been research on potential competition and how this could affect the investment. England was a country that Norway already had close links with, so this acquisition was situated in a familiar political and cultural environment. Grubernes also knew the firm it was acquiring from previous collaborations and sales, which likely helped make the transition smoother. Grubernes and NSI merged shortly after the acquisition, and Cooper, continued as a subsidiary under the Dyno name. Cooper operated with a surplus for all the years it was owned by Dyno, though it sat

[692] 1970. Report on Cooper, Pegler & Co. Limited, 26th October. *Grubernes Sprængstoffabriker A/S: Bilag til styreprotokoller 1969-1970, Nr. 3/24: 150.212:114.31.*
[693] 1970. Overtagelse av Cooper, Pegler & Co. Ltd., Sussex, England. *Ibid.*

on the outskirts of Dyno's other production. It was one of Dyno's few wholly owned subsidiaries, and its only FDI within the plastic sector. Although both Grubernes and NSI had been involved in plastic before they merged, this was seen as a small and unimportant sector in Dyno. Industrial adhesives and, later, explosives were seen as the more important international investment objects, and Cooper was eventually sold so that Dyno could concentrate on its core market sectors.

## 5.5 Denmark and Finland 1972

Dyno's first FDIs after the merger were in Denmark and Finland, both of which took place in 1972; the factory in Denmark opened in March, and the factory in Finland opened in April. Although the investments were completed after the merger, the two investments were foremost FDIs by NSI, as they were planned and the decisions to go ahead were taken in February and May 1971, respectively, before the merger took place.[694] The investments were also within industrial adhesives production, where NSI had knowledge and experience.

The FDIs in Denmark and Finland were similar in several ways, and NSI had exported industrial adhesives to both countries long before the investments took place. Both FDIs were joint ventures where at least one of the other shareholders was a consumer of industrial adhesives, which assured the new factories of an immediate market, in particular since the participants in the ventures were obliged to purchase adhesives from their subsidiary. The following sub-sections will outline the investments in Denmark and in Finland.

### 5.5.1 Denmark

NSI had been exporting industrial adhesives to Denmark since the 1950s, but by the 1970s there was a need for local production due to increased demands. NSI's long experience exporting to Denmark meant that it knew the market well. NSI had opened tank facilities for adhesives in Grenå in Denmark in 1965; this was done to reduce

[694] 1971. Styrebeslutning 15/1971. *Dyno: Styrende organ etter nøkkel nr. 32. 114 Styret.*

transportation costs so that Denmark could receive adhesives in bulk from Norway.[695] NSI/Dyno considered these tank facilities to be adequate to cover the industrial adhesives market in Denmark well into the 1960s. However, by the 1970s, the tank facilities were no longer sufficient to cover the Danish demand for adhesives.

Dyno thus established a factory in Århus, Denmark in 1972. The factory was given the name Nordalim A/S and production commenced in March 1972. The other partners in the factory were Novopan Træindustri A/S, Dansk Spaanplade Kompagni A/S, and Engsvang Spånplade Fabrik A/S. The latter two participants were chipboard producers, both of which committed to purchasing all of their adhesives from the factory for a price of the costs plus 10 per cent.[696] This was an important risk-management strategy, as it ensured the sale of adhesives from the factory even before construction had begun.

The total cost of the factory was 10.5 million NOK, and the share capital was 3.6 million DKK. Novopan Træindustri and Dyno held one third of the shares each, while Engsvang Spånplade Fabrik and Dansk Spaanplade Kompagni shared the remaining third. The factory produced liquid adhesives and formalin and had a production capacity of 35,000 tons of each. The factory was, to a large degree, based on experiences from the adhesives factory in Singapore. NSI was paid 750,000 NOK for know-how relating to the building of the factory. NSI was also responsible for selling the adhesives that were not purchased by the other two partners.[697]

### 5.5.2 Finland

The factory in Puhos, Finland, named Oy Noresin AB, opened just one month after the factory in Denmark. The two investments are often mentioned in the same sentence in Dyno's minute of meetings, and the two subsidiaries share many similarities. The building and organisation of the factory in Finland was again based on the experience

[695] 1965. *Spinas Nytt, Nr. 9.* NTNU Universitetsbibliotek.
[696] 1971. Deltagelse i formalin- og limfabrikk i Danmark. *Dyno: Styrende organ etter nøkkel nr 34, 114 Styret.*
[697] Ibid.

Dyno had gained from the factory in Singapore. Dyno owned 50 per cent of the share capital in this joint venture, which, like the factory in Denmark, produced formalin and liquid urea adhesives. The factory in Finland had a production capacity of 45,000 tons of each of the two products. The other partner in this company was the Finnish company Pellos Oy, a producer of chipboards.[698]

Dyno had been exporting and selling adhesives to the chipboard factories in Finland for several years. However, in the years prior to the investment, its position had been weakened due to increased domestic production and strengthened competition from adhesives imported from East Germany. NSI/Dyno accounted for 10 per cent of the adhesives market in Finland in 1968, but this was expected to decrease in the future unless local production could be established. Some of the decline in adhesives export had been offset by export of formalin. However, this was not expected to last, since the company Dyno sold formalin to was in the process of building its own formalin factory, which opened in 1970.[699] One option considered by Dyno was to expand the tank facilities in Finland rather than invest in a factory, but this option was rejected as the area where the tank facilities were was too small for the expansion Dyno wanted. The harbour in Finland was also sometimes covered in ice, which made it impossible to guarantee deliveries during the winter months. Dyno saw the joint venture option as "probably the last possibility for keeping an interesting share of adhesives deliveries to Finland". [700] The investment was thus made as a last resort in order to maintain the company's involvement in Finland. This led Dyno to take on additional risk and to participate in a joint venture with a company that had a strained financial situation.[701] In this case, maintaining a share of the adhesives industry in Finland was seen as so important that Dyno accepted the risks involved with Pellos Oy rather than lose its market share.

Pellos Oy had been planning to build an adhesives factory in connection to its chipwood factory. Dyno observed that, "Pellos Oy is determined to build a formalin

[698] 1972. Produksjonsselskaper i utlandet. Styremøte 6.6.1972. *Dyno: Styrende organ etter nøkkel nr. 36, 114*
[699] 1968. Deltagelse i limproduksjon - Finland. *Dyno: Styrende organ etter nøkkel nr. 32, 114.*
[700] 1971. Formalin- og Limfabrikk i Finland. *Dyno: Styrende organ etter nøkkel nr. 34, 114 Styret.*
[701] Ibid.

and adhesives factory with or without us".[702] If Pellos Oy built a factory on its own, Dyno's export to Finland would be very limited; thus, it was decided that the best option would be to cooperate with Pellos Oy in a joint venture.[703] As with the Danish investment, Pellos Oy committed to purchasing a large portion of its adhesives from the new factory.[704] However, in the Finnish case, Pellos Oy only committed to purchase approximately three quarters of the adhesives it required from the new factory. However, this would still equate to a huge amount, as Pellos Oy's new factory, which opened in 1972, was the world's largest chipboard factory.[705] The adhesives factory in Finland was located directly next to, and physically linked with, the Pellos Oy chipboard factory. This made it more convenient to provide access to the adhesives.[706]

The building of the factory had an expected cost of between 12-14 million NOK. Each of the two owners would contribute share capital of 2.6 million NOK, and the remainder was to be financed by a long-term foreign loan. The loan was covered by a guarantee and interest support by the Finnish state.[707] The factory, Oy Noresin, commenced production of adhesives in April 1972, and in 1972 Dyno received 174,000 NOK in payment for licensing and 693,000 NOK in payment for know-how from the factory.[708] The remainder of the factory's revenue was split equally between the two partners.

Dyno's involvement in adhesives production around the world grew during the 1970s. Dyno's know-how from the chemical factory that was established in Norway in 1947 became one of its most important assets during the early internationalisation of the firm; all of its foreign investment in the adhesives sector was in countries where NSI had previously built up markets through export. In Singapore, Denmark and Finland,

[702] 1971. Formalin- og Limfabrikk i Finland. *Dyno: Styrende organ etter nøkkel nr. 34, 114 Styret.*
[703] 1971. Styrebeslutning 15/1971. *Dyno: Styrende organ etter nøkkel nr. 32. 114 Styret.*
[704] Halvorsen, R. 2000: 158.
[705] 1971. Lim- og formalinfabrikk i Finland. *Dyno: Styrende organ etter nøkkel nr. 34, 114 styret.*
[706] 1972. Produksjonsselskaper i utlandet. Styremøte 6.6.1972. *Dyno: Styrende organ etter nøkkel nr. 36, 114.*
[707] 1971. Formalin- og Limfabrikk i Finland. *Dyno: Styrende organ etter nøkkel nr. 34, 114 Styret.*
[708] 1973. Styremøte 30.7.1973 - Utenlandske selskaper. *Dyno: Styrende organ etter nøkkel nr. 36, 114 styret.*

direct investments and local production were seen as a necessity in order for the company to retain its market share. In the investments in Denmark and Finland, domestic purchasers were involved as investment partners in joint ventures; this ensured the sale of adhesives and mitigated some of the risks involved in these investments. Halvorsen, a former managing director of Dyno, said about the policy of including domestic purchasers as investors, "It reduced our risk, and our chances, but reduced our risk".[709]

## 5.6 International investments from 1972 onward

Dyno continued to grow into an international company with a significant share of its income coming from subsidiaries abroad. The profit from the first four successful FDIs is presented in Tables 7 and 8 below.

**Table 7:** Turnover for 1973 and 1974[710]

| | First half of 1973 | | First half of 1974 | |
|---|---|---|---|---|
| Subsidiary | Total turnover in million NOK | Dyno's share of the turnover in million NOK | Total turnover in million NOK | Dyno's share of the turnover in million NOK |
| Cooper, Pegler & Co. Ltd (United Kingdom) | 3.9 | 3.9 | 5.7 | 5.7 |
| Dyno Industries (S) Pte. Ltd (Singapore) | 11.4 | 7.4 | 18.6 | 12.1 |
| Oy Noresin AB (Finland) | 8.4 | 4.2 | 14.8 | 7.4 |
| Nordalim A/S (Denmark) | 10.7 | 3.5 | 15.7 | 5.3 |
| **Total** | **34.4** | **19.0** | **54.8** | **30.5** |

An important share of Dyno's income from its FDIs was payments for licensing and know-how. Dyno's experience from Gullhaug Kjemiske Fabrikker in Norway was thus translated into profit in its investments abroad. In all of its green field investments,

[709] Interview with Halvorsen, August 2015.
[710] 1974. Styremøte 9.9.1974. *Dyno: Styrende organ etter nøkkel nr. 36, 114 Styret.*

Dyno was the contributor of production know-how. The licence revenue from the subsidiaries is shown in Table 8 below.

**Table 8:** Licence revenue 1973[711]

| **Subsidiary Company** | **In 1000 NOK** |
|---|---|
| Nordalim AS | 324.6 |
| Oy Noresin AB | 296.4 |
| Dyno Singapore | 700.0 |
| Total | **1,321.0** |

The investments in Denmark and Finland in 1972 were the beginning of the continued internationalisation of Dyno. In the early 1970s, Dyno was working with or towards at least four new FDIs. One of those was the acquisition of two companies in Sweden that produced polyester and phthalic anhydride.[712] Dyno was also working towards an investment in an adhesives factory in Spain. Spain was considered a "particularly interesting market" and involvement in this factory would ensure a foothold in Spain.[713] NSI had exported powdered adhesives to Spain until the early 1960s, but several national adhesives factories had started local production in the years since. Spain's adhesives industry was also protected by high customs charges, which made it impossible to export adhesives from Norway and compete with domestic companies. The idea of investing in Spain had been discussed since 1971, and plans involved an acquisition where Dyno would take over somewhere between 60 and 81 per cent of the shares in Industrias Quimicas del Carbono in Valencia, a company that produced adhesives and laminate resins.[714]

Another FDI that Dyno worked towards, but which never came to fruition, was an industrial adhesives factory in Belgium. The plans were eventually abandoned due to the involvement of BASF (Badische Anilin- und Soda-Fabrik). BASF was a large

[711] 1973. Styremøte 12.2.1973 - Foreløbig resultat 1973. *Dyno: Styrende organ etter nøkkel nr. 36, 114 Styret.*
[712] 1973. Styremøte 4.4.1973. *Ibid.*
[713] 1971. Styremøte 28/7/71. Produksjon av formalin og lim i Spania. *Dyno: Styrende organ etter nøkkel: 34, 114 Styret.*
[714] 1971. Styremøte 28.9.1971 - Kjøp av aksjer i limfabrikk i Spania. *Ibid.*

European producer of industrial adhesives and other chemical products, and had been one of the leading competitors for NSI's Spiwo investment in West Germany in 1967. BASF had seen the factories in Denmark and Finland as unavoidable, and they had therefore not attempted to prevent the building of those. The factory in Belgium was not viewed in the same way; BASF saw it as an unnecessary competitor that had the potential to decrease prices in Europe. BASF ultimately succeeded in preventing the building of this factory; for example, one of Dyno's proposed collaborators for the factory withdrew because BASF offered them guarantees for low prices on their products, and Dyno was left without any willing participants.[715]

The fourth and largest FDI plan discussed in Dyno in the early 1970s was a green field investment in a methanol factory in Delfzijl, the Netherlands. The rationale behind Dyno's involvement was that methanol was needed in its phenol adhesives production in Denmark and Finland: Dyno bought 40 per cent of the methanol that was sold to the Nordic countries. Dyno would have a 40 per cent share in the company, and would therefore be a minority shareholder. The factory was to receive natural gas from the Norwegian Sea, which Dyno would be responsible for obtaining access to.[716] The other company in the joint venture, Methanol Chemie Nederland (MNC), would be responsible for the operations, and for marketing the products. MNC would also commit to giving Dyno all of its know-how from the construction, planning, and operation of the factory. The new factory operated jointly with MNC's existing methanol factory in the Delfzijl area in 1976.[717]

Dyno continued to grow internationally during the 1970s and the 1980s. The largest FDI they made was the acquisition of the American company Ireco Chemicals on 1 January 1984. This made Dyno into an international company within the explosives sector. Dyno took over the Swedish company Nitro Nobel in 1986, and the name was changed to Dyno Nobel. The company kept its main office in Norway until Australian investors bought up Dyno Nobel in 2005. This brought Dyno's time as a multinational

[715] 1973. Notat: Belgia saken. *Dyno: Styrende organ etter nøkkel 36, 114 styret.*
[716] 1973. Styremøte 17.12.1973: Metanolfabrikk - forprosjekt. *Ibid.*
[717] 1976. Styremøte i Dyno industrier 31.august. *Dyno: Nr. 11, 150.212:152.2-929.*

Norwegian-based company to a close, ending 140 years of civil explosives production in Norway.[718]

## 5.7 Risk management

NSI and Grubernes, later Dyno, made five major FDIs between 1967 and 1972. Most of these investments were successful, although the first, in West Germany in 1966/1967, was in most ways a failure. Risk and risk management was a consideration in the investments, and several decisions were taken based on risk. This section will discuss the risk-management strategies implemented by the firm in all of their foreign investments.

There is no evidence in the data to suggest that NSI, Grubernes, or the merged Dyno drew a distinction between uncertainty and risk. This is more in line with how risk is talked about in the daily language, according to Aven.[719] Further, there is no evidence that the firm focused on scientific and calculable risk. In general, quantitative risk assessment was very infrequently used within all of Dyno's FDIs. Risk was also not necessarily seen as purely negative; in several of Dyno's investments, the risks involved with investing were seen as worthwhile. In both Singapore and Finland, the risk of investing was outweighed by the risk of losing market share. In the smaller investment in Indonesia, the risk was also seen as worth taking, due to the potential benefits being substantial. Halvorsen, the former managing director of Dyno, emphasised that Dyno preferred to focus on the opportunities rather than the risks involved.[720]

NSI's first investment in West Germany in 1966/1967 came at a time when research on risk was still in its earlier phases. Thus, the research that was available to the managers in regard to investments and risk management was limited. There was, for example, no risk management standard that they could follow. Regardless, the idea of

[718] Halvorsen, R. 2000: 74.
[719] Aven, T. 2012. Foundational issues in risk assessment and risk management. *Risk Analysis,* 32**,** 1647-1656.
[720] Interview with Halvorsen, August 2015.

risk and risk management was not foreign to the managers when they first invested abroad, and there are several examples of this being taken into consideration. For example, NSI had established an agreement with the joint venture partner regarding what would happen if the investment did not perform as expected. This shows that NSI was prepared for a potential failure. Engaging in a joint venture with a local firm can also itself be seen as a risk-management strategy, as this brought local market knowledge into the investment. A joint venture also spreads risk over more participants.[721] However, this investment appears to have been less thoroughly researched than the following investments made by NSI and Dyno.

By contrast, NSI's next investment, in Singapore, appears to have been a more extensively researched and well-planned investment. The preparatory research was more thorough than in the investment in West Germany. The same can be said of Grubernes' investment in England in 1970. In both cases, the investments were informed by thorough market research, much of which focused on competition and profitability. Examples of this include the feasibility study in Singapore,[722] and the accounting study conducted for Grubernes in England.[723] Both companies had a strong belief in and expectations for the profitability of the investment. One of the most important aspects of the preparatory research and the decision-making in several of the investments after West Germany in 1967 was the risk involved with not investing. In several of the cases, NSI/Grubernes/Dyno was concerned about loss of market share and sales, which was seen as something that would most likely occur if there was no investment. This was the case for the investments in Singapore, England, Denmark, and Finland. The risk was therefore seen as worth taking, which was also the case for smaller investment to Indonesia, which had the potential to create new markets even though the investment was seen as very risky.

Research on political risk and risk-management strategies was not a very common topic when NSI first invested abroad, but the topic was known. Political risk was a

[721] Anderson, E. & Gatignon, H. 1986. Modes of foreign entry: A transaction cost analysis and propositions. *Journal of international business studies.* 1-26.
[722] 1969. Syntetic Resin Plant. Singapore. *Received on mail from Norconsult*
[723] 1970. Report on Cooper, Pegler & Co. Limited, 26th October. *Grubernes Sprængstoffabriker A/S. Bilag til styreprotokoller 1969-1970. Nr 3/24: 150.212:114.31*.

concern in regard to the investment in Singapore, and strategies for risk mitigation were therefore included in the preparation of this investment. NSI believed that the likelihood of political risks being realised was lower in Singapore, which is one of the reasons it chose to invest in this country rather than in one of the neighbouring countries. In addition, the guarantees against political risk provided by the GIEK were set as one of the requirements that needed to be fulfilled before NSI decided to commence with the investment. NSI argued, "Some political risks are associated with the project, and we will therefore apply to have this covered by insurance".[724] Thus, the insurance through the GIEK was used to protect the investment against the political risks associated with investing in Singapore. That other Norwegian firms, primarily those involved in shipping, were already involved in Singapore likely also played a role in this country being selected over the neighbouring countries.

NSI/Dyno was also willing to take risks when it came to investing abroad,[725] and had a strong belief that internationalisation was essential to its future development;[726] both of these factors could have had an impact on risk perception at Dyno. Dyno chose to limit risks in regard to ownership, and a majority of its investments were joint ventures. This might have been related to the size of the company, with Dyno being a relatively small firm from a global perspective, and thus having more limited financial support compared to larger firms. Only one foreign subsidiary, the one in England established by Grubernes, was wholly owned. The remainder of the investments in the late 1960s and early 1970s were joint ventures. This is the risk-management strategy that was most commonly used by Dyno. Halvorsen also argued that the preference for joint ventures was intended to limit risk and because of a need to "[…] know our limits".[727] The ISO standard provides an option of "F) Sharing the risk with another party or parties"[728] in its list of strategies for managing risk.

[724] 1969. Styremøte 5. 6. Lim- og formalinfabrikk i Singapore. *Dyno Industrier. Styrende organ etter nøkkel nr. 32. 114*
[725] Interview with Halvorsen, August 2015
[726] 1971. Styremøte 28.9.1971 - Kjøp av aksjer i limfabrikk i Spania. *Dyno: Styrende organ etter nøkkel nr. 34, 114 Styret.*
[727] Interview with Halvorsen, August 2015
[728] Purdy, G. 2010. ISO 31000: 2009—setting a new standard for risk management. *Risk analysis,* 30**,** 881-886.

The use of joint ventures in Denmark and Finland is particularly interesting in regard to risk management strategies. In both cases, the partners in the joint ventures had committed themselves to buy adhesives from the new factory. Through this, Dyno was able to both share the financial risk and ensure guaranteed sales even before production had started. Halvorsen confirmed that this was used as a risk-management strategy and argued, "And thus we were aware that we could not take the risk of going abroad to produce without being linked to others".[729]

One risk-management strategy that was frequently used by NSI was a strong emphasis on maintaining a good relationship and having personal contacts with the other investors and cooperating partners. Halvorsen emphasised this several times, explaining that the first meeting with the local participants was always the most important, and that his own task was typically to convince them to believe in the firm, the project, and what they were going to accomplish.

> *Making friends, that is what you did. Friends that you could trust and if things went bad then you could talk together. Thus, as part of internationalisation, I think, this is a main point. Especially for a Norwegian company with small capital and a small business, which only has to offer specialities within glue that one can buy from elsewhere.*[730]

Building strong relationships was seen as vital because Dyno was a small, unknown firm from a small and lesser-known country that often competed against larger and more well-known firms. This aligns with research that argues that network is important for small and medium firms and that trust can help mitigate opportunistic behaviour from partners.[731] However, this is not a strategy that it is easy to plan for in advance, which the problems experienced with Mr Mok ah Leong in Singapore demonstrated.

[729] Interview with Halvorsen, August 2015
[730] Ibid.
[731] Rousseau, D. M., et al. 1998. Not so different after all: A cross-discipline view of trust. *Academy of management review*, 23.3: 393-404.

## 5.8 Summary and conclusion

NSI made its first FDI in 1966/1967 in West Germany. From a financial perspective, this was not a successful investment, but it did not discourage the company from investing abroad again. Just a few years later, in 1970, NSI was again planning an investment abroad, this time in a joint venture in Singapore. This investment appears to have been better planned, researched, and managed than the previous investment in West Germany. Political risk was managed through the selection of Singapore as the investment country and the securing of guarantees from the GIEK. Grubernes was less interested in international investments, but took an opportunity that was presented in England in 1971 by acquiring all of the shares in a plastic sprayer-producer they had previous experience of working with. This was the only wholly owned FDI Dyno had in the 1970s. When NSI and Grubernes merged in 1971, the firm was already on its way to becoming an international company, and the later FDIs continued to grow in scope.

The primary risk-mitigation strategy employed in Dyno was to use a shared ownership structure, and thereby share the financial risk with local participants. This was used to a large degree in the investments in Denmark and Finland. In most of the investments, even when the risk was seen as large, it was decided that the risk of losing market shares was more important than the potential risks involved with the investment itself. Guarantees against political risk were also used to mitigate risks in the investment in Singapore. Risk management was thus clearly an important part of the investment process. Dyno's view on risk, and its risk-willingness, was likely influenced by the fact that internationalisation had been highlighted as an important and necessary aim for the firm.

The first investment in Germany in 1967 was the one where risk management played the least important role. The investment was not profitable and was closed down a few years later. Risk seems to have been a comparatively greater consideration for the investment in Singapore in 1970. Thorough research on the market and the competition was carried out before the decision to invest in Singapore was taken, and guarantees were obtained from the GIEK. After this investment, Dyno continued to make further

FDIs, first in industrial adhesives and later in explosives. Before Dyno was bought and sold off in parts in 2005, the firm had grown to become an international firm with investments in several sectors all over the world.

# 6.0 Norcem

Norcem was established in 1968 when the three producers of cement in Norway merged into one company. The first FDI by the Norwegian cement producers had been to Ghana through a mutual sales company the year before they merged. Norcem continued to be involved with this FDI after the merger, and continued its internationalisation process with further investments in Africa and Asia; the majority of the investments were connected to Norcem's cement production. What all of Norcem's investments in the 1960s and 1970s had in common was that they were in politically unstable countries, where relatively few other Norwegian firms had been involved previously. Several of the investments were successes, while one factory, which was established in the Philippines in the late 1970s, closed down just a few years after it opened.

Norcem invested relatively early abroad compared to most firms in Norway at the time; it had already become involved with its first FDI in 1967. The firm also chose to invest in countries that were relatively unknown in Norway, and often countries that were typically unstable. The firm made its first investment in Ghana, where it had to deal with changes in government, and issues such as bribery. It was for this reason that Norcem was selected as one of the companies for this research; its involvement with joint ventures in politically unstable countries contributes interesting perspectives on risk-management strategies used during this period. Norcem is also intriguing because Heiberg, the managing director of the firm from 1973 described it as being "risk-willing".[732] Norcem's investment decisions and risk management, therefore, contribute valuable insight to a discussion of risk and risk management in the 1960s and 1970s.

[732] Interview with Heiberg, August 2015.

## 6.1 Background: Cement and cement production in Norway

The production and usage of cement-related products have a long history, going back to Babylonian times.[733] The Portland production method, first introduced in 1824, is among the most common cement-production methods,[734] and is the most common in Norway. Cement consists of calcium carbonate rock, with limestone being the most common type. In the Portland production method, the calcium carbonate rock is ground down to fine sand (dry process) or mixed with water (wet process). Necessary correction materials, such as bauxite, gypsum, or high-grade limestone are added at this stage. This next step is to burn the mixture at a high temperature, causing the grains to cling together in small rocks. This product is called clinker.[735] Clinkers are then milled down to cement, often after the product has been exported. Production of cement, particularly the wet process, is an energy-intensive process.[736] By the 1960s and the 1970s, cement had grown into one of the most used building materials, partly because it was also one of the cheapest. The primary raw material in cement production, limestone, can be found almost anywhere; however, Norway has large deposits of limestone, and in 1971, 5,221,084 tons of limestone were extracted.[737]

Production of cement in Norway began in 1890 when Swedish and German investors opened a small factory in Slemmestad, a village near Oslo. Norwegian investors took over this factory in 1891, making it the first Norwegian-owned cement factory. The factory, Christiania Portland Cementfabrik (CPC), was the only producer of cement in Norway for the next 25 years.[738] Between 1915 and 1918, three more cement factories were established in Norway. Two of those, Nordland Portland Cementfabrik, and Dalen Portland Cementfabrik, together with the older Christiania Portland Cementfabrik, survived until they merged to become Norcem in 1968. The last factory, Ce-No, closed down in 1927. The establishment of several new cement factories in Norway over a short time frame in the early 1900s led to increased export, as the

[733] Rutle, J. 1958. *Cement: fremstilling og egenskaper*, Oslo, Teknisk Ukeblad.
[734] Fasting, K. & Gartmann, F. 1980. *Dalens egne år 1916-1968*, Brevik, Fabrikken.
[735] Jans, I. & Rosenbaum, D. I. 1997. Multimarket contact and pricing: Evidence from the US cement industry. *International Journal of Industrial Organization*, 15, 391-412.
[736] Norcem. 1986. En introduksjon til sement og betong, Oslo.
[737] NOU 1974: 55. *Norges ressurssituasjon i global sammenheng.* Oslo, Universitetsforlaget.
[738] Gartmann, F. 1990. *Sement i Norge 100 år,* Oslo, Norcem: 92.

Norwegian market was not large enough to absorb the increase in cement production.[739] In the 1920s, Norwegian cement was exported and sold all over the world, including the USA, India, South America, and Africa.[740] Christiania Portland Cementfabrik (CPC) even bought shares in a ship and sent it to Colombia to use as a depository for cement.[741] CPC owned several ships throughout the 90 years the company existed before merging; a majority of those ships were used for local transport of cement and limestone. Dalen Portland Cementfabrik (Dalen) also purchased ships for local shipping, but to a lesser degree than CPC. Dalen mostly relied on renting shipping space from the Norwegian shipping industry.[742] This contributed to the development of a close relationship between the cement producers and the ship owners, and this relationship played an important role in the growth of the huge Norwegian cement export business after the Second World War. Thus, this relationship contributed to Norcem becoming an internationally oriented company.

[739] Ibid: 115.
[740] Ibid: 38.
[741] Sørensen, Ø. & Width, T. 1942. Aktieselskabet Christiania Portland cementfabrik: 1892 - 27.mai - 1942, [Oslo], Fabriken.
[742] Jacobsen, E. 1997. *Cementbåtene: rederihistorie gjennom hundre år*, Nærsnes, Tangen maritime forl: 11.

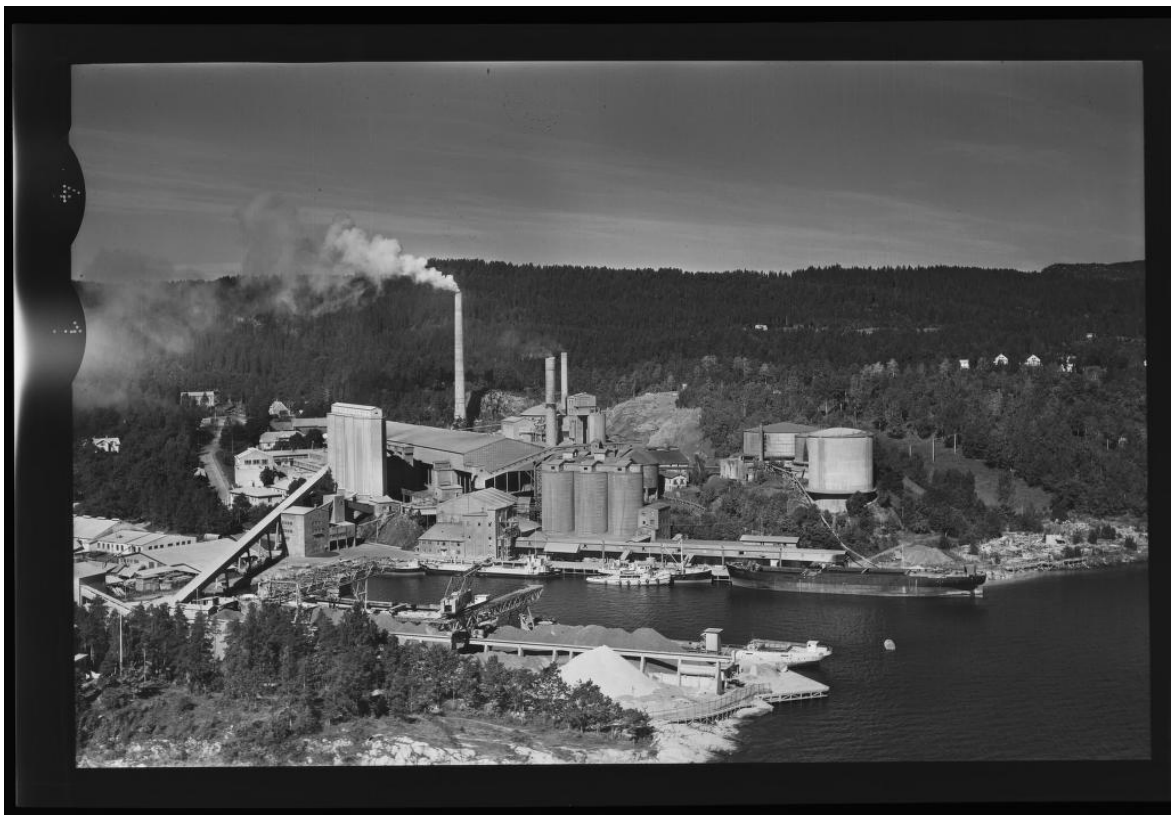

**Figure 3:** Christiania Portland Cementfabrikk: Slemmestad cement factory, 1963[743]

Cooperation between the cement producers in Norway began early in the development of the industry; an agreement to support each other had already been drafted by 1919.[744] A/S Norsk Portland Cementkontor was established in 1923; this was a joint sales office for Christiania Portland Cementfabrik, A/S Dalen Portland-Cementfabrik, and CeNo.[745] The background to this was the increase in domestic production of cement and the complications this brought.[746] The sales office had mutual agreements with England and Sweden, where each party promised to not compete on each other's home markets.[747] Domestic market shares, however, created disagreements between the three Norwegian cement producers in the years to come. An agreement on the issue was finally reached and signed by all three firms in 1959; the agreement divided

[743] 1963. Photograph by *Widerøe / Jaquet, E*. Available: http://urn.nb.no/URN:NBN:no-nb_digifoto_20151126_00226_NB_WF_RKK_141670 [Accessed 26/10/2016].
[744] Fasting, K. & Gartmann, F. 1980: 63.
[745] Norcem 1986. En introduksjon til sement og betong, Oslo.
[746] Steen, F. & Sørgard, L. 1999. Semicollusion in the Norwegian cement market. *European Economic Review,* 43**,** 1775-1796.
[747] St.tid. 2716-2732 (1952-1953) Interpellasjon fra repr. Kobbe om sementindustrien.

Norway into separate sales areas for each of the three firms.[748] Nordland Portland Cementfabrik was incorporated into Norsk Portland Cementkontor, the joint sales office for the Norwegian cement producers, in 1962.

CPC and Nordland were primarily focused on the domestic market, while Dalen was primarily involved in export. The Norwegian cement market was, through the sales offices, operated like a cement cartel until the merger in 1968.[749] Norway in the 1920s and 1930s held a favourable position toward cartels, which were seen as a positive force that aided the accumulation of national wealth. However, this view on cartelisation began to change in Norway in the 1950s and 1960s.[750] Norsk Portland Cementkontor was, for example, criticised in the 1950s for prioritising export over the domestic market, despite its monopoly in the Norwegian market.[751] The main areas that Norsk Portland Cementkontor exported to were to the USA and West Africa;[752] both areas continued to be important for export and later FDIs under the merged company.

The competition for cement export in Europe was strong, and several organisations was established with the aim of resolving issues. Dalen Portland Cement helped establish the International Export Conference, held in Paris; this work was later continued through Norcem's participation in the international organisations, Intercement and Cembureau.[753] Both CPC and Dalen joined Intercement upon its creation. The most important cement producers in Europe were also part of Intercement and export quotas were set for each of the participating countries; Norway's share was set at 3.03 per cent. A cooperative sales office for CPC and Dalen was created in order to organise the Norwegian export, under the name AS Norway

[748] St.tid. 2342-2374 (1959-1960) Om forhandlinger mellom sementfabrikkene vedrørende ny markedsfordelingsavtale og A/S Christiania Portland Cementfabriks ønske om å overta aksjer i A/S Nordland Portland Cementfabrik.
[749] Röller, L.-H. & Steen, F. 2006. On the workings of a cartel: Evidence from the Norwegian cement industry. *The American economic review*, 96**,** 321-338.
[750] Schröter, H. G. 1996. Cartelization and decartelization in Europe, 1870-1995: Rise and decline of an economic institution. *Journal of European Economic History*, 25**,** 129.
[751] St.tid. 2716-2732 (1952-1953) Interpellasjon fra repr. Kobbe om sementindustrien.
[752] Fasting, K. & Gartmann, F. 1980: 143-144.
[753] 1970 "Bedriftsreportasje III", *Nytt i Norcem*: 2-70.

Cement Export Ltd;[754] the sales office played an important role in the two firms' further internationalisation and FDIs.

The company Norcem was established in November 1968 after the three remaining cement producers in Norway, Christiania Portland Cementfabrik, A/S Dalen Portland Cementfabrik, and Nordland Portland Cementfabrik, merged.[755] The merger came after years of cooperation on both domestic production and export. The merger created some political tension in Norway, mainly due to concerns around the role of the cement production in northern Norway. The cement factory in the north of Norway was important for the region because it was a major employer and therefore contributed to the Norwegian district policy.[756] The merger made Norcem into one of the 10 largest firms in Norway, and it employed over 3,000 people. Between 1965 and 1970, Norway became Western Europe's largest exporter of cement.[757] In 1973, Gerhard Heiberg took over as the manging director of Norcem; he led the company through an internationalisation process and a merger with Aker Mekaniske Verksted in 1987. The company was sold to the German company Heidelberg Cement in 1999. The Norwegian cement factories retained the name Norcem, and they are still a part of Heidelberg Cement today.[758] Dalen Portland Cementfabrik (today named Norcem Brevik) now produces around 1.2 million tons of cement annually,[759] while Nordland Portland Cementfabrik (today named Norcem Kjøpsvik) produces approximately half a million tons annually today.[760] Christiania Portland Cementfabrik has been closed down.

Norcem produced several different products, but its primary products have always been cement and clinker. Other products Norcem produced at different times include concrete, lightweight concrete, Leca blocks, fibreglass, plastic boats, paper, and

[754] Sørensen, Ø. & Width, T. 1942: 80-81.
[755] Heiberg & Odegard 1983. Internasjonalisering av norsk industri.
[756] St.tid. 106-107 (1968-1969) Gr. spm. fra repr. Margith Munkebye om sammenslutning av 3 norske sementfabrikker og sikring av driften av fabrikken i Kjøpsvik.
[757] Gartmann, F. 1990: 238.
[758] *Norcem: About us* [Online]. Available: http://www.norcem.no/en/about_us [Accessed 26/10/2016].
[759] *Norcem Brevik* [Online]. Available: http://www.norcem.no/en/brevik [Accessed 26/10/2016].
[760] *Norcem Kjøpsvik* [Online]. Available: http://www.norcem.no/en/kjopsvik [Accessed 26/10/2016].

eternitt (asbestos cement).[761] The company was also involved in oil boring and oil service industries in the late 1970s and early 1980s.

Cement in Norway has always been a state-regulated industry, and has been subject to a maximum price regulation imposed by the Norwegian government. This is something the companies themselves, before the merger, were strongly opposed to. They argued that the maximum price in Norway was too low in relation to the costs of production and the price in other countries.[762] The Norwegian government also decided on maximum export levels for cement. Thus, the relationship between the Norwegian government and the Norwegian cement industry was not always smooth, as it was profoundly affected by the different interests of the two parties. This was particularly the case in the years following the Second World War, when there was a shortage of cement on the Norwegian market.[763]

Norway has produced cement since the first factory was established in 1890 until the present day. The merger of the three Norwegian cement producers into Norcem gave this firm a monopoly on cement production in Norway. The firm had a long experience with export; it participated in international cement organisations and had a close relationship with the Norwegian shipping industry. Export has consistently been of significant importance within the Norwegian cement industry, and the consolidation of the three firms through various sales and export agreements meant that the industry was in a strong position to focus on export and FDIs during the 1960s and the 1970s.

## 6.2 From export to FDI

Norcem's focus on export, primarily of cement and clinker, gave it international experience and contacts. In the early 1970s, the focus on export of cement was complemented by a strong focus on export of know-how and management services.

[761] 1976. Opplysninger i forbindelse med søknad om investeringsgaranti. *Garantiinstiuttet for eksportkreditt: Da L0021*.
[762] Andresen, M. 1967. *Ved en milepel*: utgitt i anledning av A/S Christiania Portland Cementfabriks 75-års jubileum, Oslo, Fabrikken: 44-45.
[763] St.tid. 2716-2732 (1952-1953) Interpellasjon fra repr. Kobbe om sementindustrien.

The knowledge and contacts the company gained through this contributed to Norcem's later involvement in FDIs.

Norwegian cement producers began to export early in the development of the industry. However, the impact of the Second World War required a period of extensive rebuilding in Norway. The three Norwegian cement producers were almost entirely occupied with producing for the domestic market, and not much product was exported during this period. Between 1945 and 1955, the yearly export was less than 37,000 tons annually.[764] However, by 1955, the rebuilding of Norway was slowing down and the cement producers had to look for other potential markets for what had become an overproduction of cement compared to the Norwegian domestic usage. The Norwegian production of cement increased by 150 per cent between 1955 and 1968, while usage only increased by 50 per cent in the same period, thus contributing to the overproduction.[765] A/S Dalen Portland Cementfabrik began to export regularly during this period, and in 1967, the factory exported 632,000 tons of cement and clinker alone. Christiania Portland Cementfabrik participated in this export indirectly by selling cement to Dalen, which was responsible for export.[766] In the late 1960s, 40 per cent of the domestically produced cement was being exported abroad.[767] Norway was one of the few countries that managed to sell all of its cement production throughout the 1960s.[768]

A large share of Dalen's export success was due to the fact that it was able to take advantage of high import in Europe in the 1950s and the 1960s, which was mainly from the USA, but also from other areas of the world, and led to empty ships leaving Europe to collect foreign goods. To increase profits, the owners of these ships were looking for goods that they could export from Europe.[769] The Norwegian cement industry was primed to take advantage of this possibility due to its advanced development compared to on other continents. This agreement between the cement

[764] 1967 "Styrets Beretning" in: Christiania Portland Cementfabrik: Årsberetning og regnskap.
[765] Röller, L.-H. & Steen, F. 2006.
[766] 1967 "Styrets Beretning" in: Christiania Portland Cementfabrik: Årsberetning og regnskap.
[767] Steen, F. & Sørgard, L. 1999.
[768] 1971 "Bedriftreportasjen IX", *Nytt i Norcem*: 4-71.
[769] 1969 "Norcem eksporterer i år 1,1 million tonn cement", *Nytt i Norcem:* 1-69.

producers and the shipping industry contributed to low transportation costs.[770] Due to Norway's position as a shipping nation and the Norwegian cement producers' existing close relationship with ship owners, Norwegian cement companies found themselves in a strong export position.[771] The Norwegian ports, which were ice-free all year, also contributed to making Norway a large exporter of cement and cement-related products together with, according to Norcem themselves, their "[…] good reputation on the export markets".[772]

Thus, export played a significant part in Norcem's development. For a short period, between 1965 and 1970, Norway was Western Europe's largest exporter of cement.[773] Approximately 36 per cent of the overseas cement export from Western Europe was produced by Norcem. In 1968, Norcem exported 829,000 tons of cement, which increased to 1.1 million tons the following year. Of this, slightly under 40 per cent was exported to a cement company owned by Norcem in Ghana, and 30 per cent was exported to the USA. The remainder was primarily exported to the Canary Islands, the Ivory Coast, and Liberia.[774] Norcem utilised 19 ships that belonged to four different ship owners, which were used to transport cement around the world.[775]

The global production of cement in 1970 was a little over 570 million tons; Norcem's production of cement equalled 0.5 per cent of the total global production, and Norcem can therefore be considered a small company, production wise. However, its export was, as has been shown, considerably more significant.[776] By 1970, Norcem's aim was that "[…] domestic sales together with exports [will] provide the basis for a rational development of the Norwegian cement industry".[777] To achieve this, income from export was seen as necessary for developing the domestic production, and an essential source of revenue for Norcem. This aligns with Benito et al.'s argument that firms in

[770] Interview with Heiberg, August 2015
[771] 1971 "Bedriftreportasjen IX", *Nytt i Norcem*: 4-71.
[772] 1969 "Norcem eksporterer i år 1,1 million tonn cement", *Nytt i Norcem:* 1-69.
[773] Gartmann, F. 1990: 33.
[774] 1969 "Norcem eksporterer i år 1,1 million tonn cement", *Nytt i Norcem:* 1-69.
[775] 1971 "En smidig bulk-handling er av størst viktighet for vår eksport", *Nytt i Norcem*: 4-71.
[776] 1971 "Bedriftreportasjen IX", *Nytt i Norcem*: 4-71.
[777] Grøtter. 1970 "Vi må gjøre vår industri så interessant for nordmenn at styringsretten forblir norsk", *Nytt i Norcem*: 4-70.

small open economies must look for markets outside of their home markets if they are to achieve economy of scale.[778] Home market sales together with export income created the basis for the development of Norwegian cement production.

Norcem's primary export markets were outside of Europe. This was not linked to Norway's decision to remain outside of the common market, as the import duty on cement to the EEC countries was relatively low regardless. The Norwegian decision against EEC membership was not of importance to Norcem.[779] The decision to primarily export to markets outside of Europe was more likely connected to the strength of the European competition. Several of the EEC countries were already producing cement and had no need to import it from abroad.[780] Norcem's decision to avoid the European markets was likely also linked to the fact that export to European markets could lead to increased foreign import of cement to the Norwegian market, thus creating greater competition in Norcem's home market. Most of Norcem's cement was therefore exported to non-European countries.[781]

After clinker and cement, lightweight concrete was one of Norcem's most important export products. Lightweight concrete had been produced in Norway since 1932.[782] Norcem had at one point a relatively large export of lightweight concrete to Germany, which continued until Germany began to build its own lightweight concrete factories. Thereafter it exported to Austria, until local factories were established there too. Libya and Abu Dhabi were the next markets for Norcem's lightweight concrete, but export to those countries only continued until conflicts in the Middle East closed the transport route in 1967. It was after this that Norcem began to export lightweight concrete to West African countries. Africa grew in importance for Norcem during the 1970s.[783] One of the countries in which Norcem became particularly heavily involved in the export of lightweight concrete products was the Ivory Coast. Norcem participated in a

[778] Benito, G. R., Larimo, J., Narula, R., & Pedersen, T. 2002. Multinational enterprises from small economies: internationalization patterns of large companies from Denmark, Finland, and Norway. *International studies of management & Organization*, 32(1), 57-78.
[779] Interview with Heiberg, August 2015.
[780] 1969 "Norcem eksporterer i år 1,1 million tonn cement", *Nytt i Norcem:* 1-69.
[781] Röller, L.-H. & Steen, F. 2006
[782] 1971 "Bedriftreportasjen IV", *Nytt i Norcem*: 3-70.
[783] 1970 "Muligheter for en utvidet lettbetongeksport til landene i Vest-Afrika", *Nytt i Norcem*: 3-70.

house-building project in Abidjan, on the Ivory Coast; the houses were built using lightweight concrete that was exported by Norcem, and the export agreement included deliveries of material required to build 6,000 houses.[784] The type of lightweight concrete that was exported, aerated lightweight concrete, was an excellent building material for tropical areas such as the Ivory Coast, as it was fireproof, rot-free, and was not susceptible to termites.[785] The export arrangement continued until January 1975 when a newly built local factory took over the production of lightweight concrete.[786]

Norcem's focus on its future markets as being those found abroad continued to grow. One of the reasons for this was the high costs involved with cement production and the relatively small Norwegian market. "It has become one of our long-term goals to use the strong reputation we have gained as a result of our know-how, our technology, and our competent people, on different projects in several places around the world".[787] Norcem saw the Norwegian market as too small for future growth, and export and internationalisation were therefore seen as necessary if the firm was to survive in the long term.[788] In 1973, Gerhard Heiberg took over as the managing director of Norcem. He was hired due to his international experience (he had studied abroad and had experience working in both Pairs and Salzburg), his knowledge of languages, and because the board of Norcem wanted to further internationalise the company.[789] Research shows that decision-makers with an international orientation are more likely to identify, create, and capture international opportunities. Managers with international experience also perceive international investments as less risky.[790] Norcem's choice of Heiberg as managing director was thus likely an important driver of the firm's increasing internationalisation in the 1970s. After the merger, Norcem was also the only cement producer in Norway and the company therefore did not have to be as concerned about competition on the home market. Norcem's aims for the future in

[784] 1969 "Også Siporex til Afrika", *Nytt i Norcem*: 1-69.
[785] 1970 "Bedriftreportasjen IV", *Nytt i Norcem*: 3-70.
[786] 1974 "Elfenbenskysten "over og ut" for S/Y-Eksporten", *Nytt i Norcem:* 3-74.
[787] Heiberg, G. 1976 "Internasjonalisering", *Nytt i Norcem:* 3-76.
[788] 1978 "Norcem vokser internasjonalt", *Aftenposten* 12. Mai.
[789] *SNL: Gerhard Heiberg* [Online]. Available: https://nbl.snl.no/Gerhard_Heiberg [Accessed 28/10/2016].
[790] Herrmann, P., & Datta, D. K. 2006. CEO experiences: Effects on the choice of FDI entry mode. *Journal of Management Studies*, *43*(4), 755-778.

1977 were stated as "- cover the Norwegian cement market to reasonable prices - continue to export - get involved in cement-based industries abroad – the sale of know-how within those activity areas".[791]

One of Norcem's major export markets for cement was the USA, where it had a subsidiary, Cilco Cement Corporation (from 1974 Norcem Inc.). This was a sales subsidiary based in New York and Bridgeport. The subsidiary owned and managed unloading machinery and silos, with a capacity of 24,000 tons of cement in 1970.[792] Norcem had acquired the shares in this company in 1965, and was in charge of running and managing it.[793] The cement required was produced and shipped from Norway to New York, where it was unloaded into the silos and later sold on. The transport of the cement from Norway to New York via ship was as cheap as transport by rail or road from the cement production sites in the USA.[794] This was largely due to the close relationship between Norcem and the shipping industry in Norway, and was the reason Norcem could compete on the American market. In 1970, Norcem recorded a turnover of over 300,000 tons of Norwegian cement sold to New York and almost 100,000 tons to Bridgeport.[795] The cement Norcem shipped to New York City amounted to approximately 25 per cent of the cement the city used annually.[796]

Norcem's export to the USA continued to grow throughout the 1970s. It was awarded a contract for delivery of cement to Rinker Materials Corp. in Florida in 1972; this was the fifth largest producer of concrete in the US, and the contract was important for Norcem's export. The contract was seen as particularly important due to insecurity created by payment issues and political instability relating to the export to Ghana. Income from export to Ghana contributed to a large share of Norcem's profit at the time, and it was therefore seen as important to have other sources of income to make

[791] St.tid. 2242-2254 (1976-1977) Interp. fra repr. Rolf Hellem om sementindustriens framtid og utvikling i Norge og gr. spm. fra repr. Hanna Kvanmo om nedtrapping av Norcems produksjon i Tysfjord.
[792] 1970 "Norcem i Amerika", *Nytt i Norcem*: 4-70.
[793] 1974 "Norcem går sterkere inn for eksport av Know how", *Nytt i Norcem:* 4-74.
[794] Interview with Heiberg, August 2015.
[795] 1970 "Norcem i Amerika", *Nytt i Norcem*: 4-70.
[796] 1971 "Bedriftsreportasjen IX", *Nytt i Norcem*: 4-71.

up for any potential loss in Ghana.[797] The contract Norcem established with Rinker Materials Corp. in Florida was for the delivery of 270,000 tons of cement annually for a period of five years. The agreement also included the building of off-loading systems in Florida. Strong environmental regulations imposed by the American government had to be taken into consideration in the building of this off-loading system.[798]

Norcem applied for guarantees from the Guarantee Institute for Export Credits (GIEK) for several of its export projects, and the firm already had extensive experience of using the Institute's various guarantees to manage risks. In January 1967, Norway Cement Export, the forerunner to Norcem, had applied for coverage of export of 10,000 tons of clinker to Sierra Leone. In June of the same year, it had applied for coverage for its export to Ghana.[799] In the 1970s, Norcem applied for guarantees for the delivery of lightweight concrete for the housing development project on the Ivory Coast, in cooperation with Norad (Norwegian Agency for Development Cooperation).[800] Norcem also applied for currency coverage for an export agreement of cement to Brazil in 1975,[801] and used GIEK to manage risks related to several of its export projects.

### 6.2.1 Export of know-how

The late 1950s and the 1960s saw an increased focus on the international market through export within Norcem. In the 1970s, this was expanded to include the export of know-how relating to cement production and managerial activities. In some cases, the export of know-how and managerial activities grew into FDIs. For example, in 1971, Norcem was invited to Brazil with a request to contribute know-how to a newly built cement factory. The invitation was regarded as the first opportunity for Norcem to profit from the sale of know-how.[802] This was later expanded, and Norcem decided

[797] 1973 "Ny langsiktig eksportkontrakt for Norcem", *Nytt i Norcem*: 2-72.
[798] 1971 "Nytt losseanlegg for Norsk sement i Florida", *Nytt i Norcem*: 4-71.
[799] 1967. Styrets møte 12/1, 22/6, 23/11. *Garantiinstiuttet for eksportkreditt: Aa-0006.*
[800] 1973. Styrets møte 8/3 and Utvidet styre 30/8. *Garantiinstiuttet for eksportkreditt: Aa-0023.*
[801] 1975. Kursgaranti ved eksportsalg av cement til Brasil. *Garantiinstiuttet for eksportkreditt: Ga-0002.*
[802] 1971 "Norcem holder stillingen som ledende oversjøisk cement-eksportør blandt land i Vest-Europa", *Nytt i Norcem:* 4-71.

to actively pursue an income from the sale of general knowledge, consulting, know-how, and management and operational knowledge. International activity was declared as a goal in itself.[803] The sale of know-how was often less risky than FDIs because the financial involvement was lower. In Ras al-Khaimah, Norcem's involvement in the management of the factory was used as a means to acquire knowledge of the country and to build a reputation and relationships before the company invested there directly.[804] Norcem aimed to have a consolidation period after years of expanding production capabilities in Norway after the merger in 1968.[805] This might help explain why it took Norcem 10 years from its first FDI to the second, even though it continued its international activities through a focus on export of products, know-how, and managerial skills in the same period.

In 1976, Norcem established an engineer department in Norway with the aim of further expanding its export of know-how. Ghana, Nigeria, the Ivory Coast, the Philippines, the United Arab Emirates, and the Gulf area were identified as the main regions for this.[806] During the 1970s and 1980s, Norcem exported and contributed know-how and managerial activities all around the world; it was, for example, requested by the government of Jordan to examine the cement conditions in the country in 1978.[807]

The first major contract Norcem secured for export of know-how and management was the participation in the management and running of a cement factory in Ras al-Khaimah in the United Arab Emirates (UAE) in 1974. Ras al-Khaimah had gained independence just three years earlier and had previously derived the majority of its income from fishing, pearl fishing, trade, and some agriculture. The UAE was growing rapidly by the mid-1970s, largely due to promising oil discoveries and exploration. Ras al-Khaimah was, according to information acquired by Norad, ranked fourth in political and economic importance amongst the seven Arab Emirates, and was a state with a strong focus on internal development. However, it also had a strained relationship with Abu Dhabi and a low level of enthusiasm for the Federation of the

[803] 1974 "Norcem går sterkere inn for eksport av Know how", *Nytt i Norcem:* 4-74.
[804] Interview with Heiberg, August 2015.
[805] 1970 «Ved en milepel for norsk cementindustri», *Nytt i Norcem:* 1-70.
[806] 1976 "Norcems internasjonale engasjament opptrappes" *Nytt i Norcem:* 2-76.
[807] 1978 "Norcem får oppdrag av den Jordanske sementindustri" *Nytt i Norcem:* 4-78.

Seven Emirates.[808] Approximately 60,000 people lived in Ras al-Khaimah in 1976, but the UAE was experiencing rapid development and growth.[809] Combined, the seven Emirates imported approximately 700,000 tons of cement in 1973, the year before Norcem gained the contract, and the market for cement in the Emirates was therefore significant. Norcem saw itself as just as knowledgeable of cement production as any of the globally and more well-known companies were, and therefore decided to compete for the management contract of the factory after hearing about the plans. Norcem discussed the possibility with the leadership in Ras al-Khaimah, and was awarded the contract.[810]

The contract between Norcem and the cement factory, which took the name Union Cement Company, was signed on 9 September 1974.[811] Initially, 14 Norwegians who had previous experience working for Norcem in Norway were employed at the factory for the first three years of its existence. Including families, a total of 63 people moved from Scandinavia to Ras al-Khaimah to contribute to the management of the factory; a Norwegian school was set up for the children.[812] Norcem was not the only Norwegian firm to be involved in Ras al-Khaimah at the time. According to *Aftenposten*, one of Norway's largest newspapers, several Norwegian businesses were working towards, or were already involved in the country.[813] The contract between Norcem and Union Cement Company stated that Norcem was to educate local management, whom would eventually manage the factory without Norcem's help.[814] However, this was never achieved, and the management contract was first extended until 1980, and later even further.[815]

[808] 1976. Telex Norad. *Direktoratet for utviklingshjelp (Norad): Da-L0794.*
[809] 1976. Opplysninger i forbindelse med søknad om investeringsgaranti. *Garantiinstiuttet for eksportkreditt: Da L0021*.
[810] Interview with Heiberg, August 2015
[811] 1974 "Norcem-kontrakt om fabrikk i Midt-Østen", *Aftenposten*, 10. September.
[812] 1974 "Til det første møtet med «tusen og en natt»", *Nytt i Norcem:* 4-74.
[813] Abel, M. 1974, "Norske bedrifter med fra starten", *Aftenposten*, 17. Desember.
[814] 1974 "Norcem-kontrakt om fabrikk i Midt-Østen", *Aftenposten*, 10. September.
[815] 1977 "Ny tre års kontrakt for Norcem i Ras Al Khaimah" *Nytt i Norcem:* 2-77.

### 6.2.2 From know-how to FDI: Ras al-Khaimah and Saudi Arabia

Norcem's export of managerial activities and know-how gave the firm valuable contacts and knowledge about potential markets abroad. This knowledge was important for several of the firm's FDIs in the late 1970s and early 1980s. Rolf Jørgensen, the Norwegian manager of Union Cement Factory in Ras al-Khaimah, explained to Norcem's company magazine that one aspect of his work was to build up Norcem's reputation in the area so that the company could also get involved in other projects.[816] This strategy was evidently successful, and Norcem participated in the building and management of a block factory in the country in 1976-1977. A stock company was established in 1976 with the name Raknor, and the factory produced its first lightweight blocks in 1977. Norcem held 40 per cent of the stock in the company, with the remainder held by Sheikh Saqr bin Mohammed al-Qasimi, the ruler of Ras al-Khaimah.[817] Norcem and Sheikh Saqr knew each other from the management of the earlier cement factory, which the Sheikh owned. According to Heiberg, it was important that Norcem could trust its joint-venture partner before it invested financially in the country through direct investments: "[…] we found we could trust them and they found they could count on us, and then it was easier to say: yes, let us invest together".[818] In *Nytt i Norcem,* Heiberg stated that Norcem was invited to participate as owners in the factory due to the strong reputation they had gained from the management of Union Cement Company.[819] The management of the cement factory had been a way for Norcem to gain knowledge about the country and its political leadership before it became financially involved in the region. It had also been a way for Norcem to strengthen and build on its reputation there. In this way, Norcem's management activities evolved from contract-based sale of know-how and managerial tasks to FDIs. Raknor, the lightweight concrete factory, was built only 300 metres from the cement factory, and it maintained a close relationship with the Norwegian-managed cement factory.[820]

[816] 1976 "Norcem i Arabia", *Nytt i Norcem*: 4-76.
[817] 1976 "Norcem bygger ny blokkfabrikk i Ras Al Khaimah", *Nytt i Norcem:* 3-76.
[818] Interview with Heiberg, August 2015
[819] Heiberg, G. 1976 "Internasjonalisering", *Nytt i Norcem:* 3-76.
[820] 1982 "Bra resultat for Raknor i Ras al-Khaimah", *Nytt i Norcem:* 1-82.

Norcem carried out a feasibility study before deciding to invest in Raknor. In the feasibility study, it was argued that the need for lightweight concrete blocks would increase in the future due to the development plans for the Emirates. The concrete blocks that were in production in the area were of low quality and therefore not usable in larger buildings. Some of the other Emirates produced lightweight concrete blocks of higher quality, but production was consumed by the local market. Norcem therefore saw no real competition for the lightweight blocks it produced.[821] The capacity of the new factory was 7 million blocks annually, and Norcem was responsible for the management. This was Norcem's first project of this scale abroad, and the company oversaw and was responsible for everything related to the factory, from the project planning to ordering the necessary equipment.[822] The contract between Norcem and Sheikh Saqr stated that Norcem could withdraw from the project at any time without seeking the Sheik's formal approval.[823]

Again, Norcem applied for guarantees from the GIEK for its involvement in the lightweight block factory. Norcem argued that the investment would, "Strengthen the Norwegian industrial engagement in Ras al-Khaimah and the Middle East" and "reinforce the ties between the government of Ras al-Khaimah and Norwegian industry, which will provide increased opportunities for Norwegian industry in the Gulf area".[824] The factory would train a local workforce to take over much of the work, and Norcem argued that this would contribute to a transfer of know-how from Norway, and thus to local development.[825] Norcem contributed share capital of 4.48 million NOK for its 40 per cent ownership stake, and applied for guarantees for this amount, over a period of 20 years with 90 per cent coverage.[826] The guarantee was given for 15 years with the premium of 0.7 percent per annum of the insured sum. It was set as a requirement for the guarantees that Norcem

> *[…] with all available means works towards trying to implement that the employees of the company should be given working conditions, both in terms of*

[821] 1976. Norcem: Søknad om investeringsgaranti. *Garantiinstiuttet for eksportkreditt: Da L0021.*
[822] 1976 "Norcem bygger ny blokkfabrikk i Ras Al Khaimah", *Nytt i Norcem:* 3-76.
[823] 1976. Utv.g. nr. 19-1976. A/S Norcem, Oslo. *Direktoratet for utviklingshjelp (Norad): Da-L0794.*
[824] 1976. Norcem: Søknad om investeringsgaranti. *Garantiinstiuttet for eksportkreditt: Da-L0021.*
[825] 1976. Opplysninger i forbindelse med søknad om investeringsgaranti. *Ibid*
[826] 1976. Norad: UAE (Ras al Khaimah) – A/S Norcem – Garantisøknad. *Ibid.*

> *wages and otherwise, which contributes to them receiving, compared to the conditions in Ras al-Khaimah, a good standard of living and social security.*[827]

Norad (the Norwegian Agency for Development Cooperation) recommended that the guarantees be granted because it was an investment that the local government, through the Sheikh's participation, was interested in. The contribution that high-quality concrete blocks made toward housing quality, and Norcem's plans for training local staff, were stated by Norad as other reasons for approving the application.[828] The application was sent without the Sheikh's knowledge, and Norcem requested that the application be kept a secret. On this point, Norcem argued,

> *Since Sheikh Saqr is both the political leader of the Emirate and a part of this project, it will be very unfortunate for both this project and later cooperation if it becomes known to him that we seek guarantee coverage for political risks. We therefore request confidentiality regarding the case, and that it must not be made public in statistics or in other public information that can be traced back to this project.*[829]

Although Ras al-Khaimah was Norcem's largest investment in the region during the 1970s, it was also involved with other investments. In 1977, the same year that Raknor opened, Norcem also invested in a company named Saudia Bulk Transport. Norcem created this firm together with the Norwegian shipping company Bulkhandling, and local interests. Norcem initially had a 25 per cent owner interest, but this was increased to 37.5 per cent in 1980 when Bulkhandling withdrew from the investment.[830] Saudia Bulk Transport's main purpose was to import and distribute cement to Saudi Arabia. The company had purchased two old ships, which were used as floating silos. This meant that Saudia Bulk Transport could transport bulk quantities of cement from the larger offshore ships to the underdeveloped Saudi Arabian harbours, and thereby contribute cement to a region under conditions of strong development.[831] The ships were stationed outside Dammam and Al Jubail from 1977 until 1983, when mainland

[827] 1976. Polise for investeringsgaranti vedrørende kapitalinnskudd. *Garantiinstiuttet for eksportkreditt: Da-L0021.*
[828] 1976. Norad: UAE (Ras al Khaimah) – A/S Norcem – Garantisøknad. *Ibid.*.
[829] 1976. Søknad om investeringsgaranti. *Ibid.*
[830] 1977 "Nye kjempeoppdrag for Norcem og bulkhandling i Saudi-Arabia", *Nytt i Norcem:* 4-77.
[831] 1977 "Muligheter for store cementleveranser til Arabia", *Nytt i Norcem:* 2-77.

silos were prioritised. In 1982, Saudia Bulk Transport was described by Norcem as its most successful investment abroad.[832]

Norcem was not the only Norwegian firm to be involved in the Middle East and the Emirates. The Middle East was considered one of the priority areas for Norwegian export during the later years of the 1970s and during the 1980s, and several export-oriented firms prioritised the area. The Middle East was considered promising due to its increased income after the oil crisis in 1973 and its strong purchasing power. This also meant that the Norwegian Export Council, Norges Eksportråd, increased its focus on the area; the council conducted research on export possibilities, supported participation in fairs, and established several new offices in the area. One of those offices was established in Jeddah, Saudi Arabia, in 1975. Other offices were established in Baghdad, Iraq, and in the Emirates.[833] One of the risks involved with investing in the Middle East and the Emirates was the area's complicated relationship with Israel. Countries with a close connection to Israel would typically not be awarded contracts for investments in the Arabic countries. A request for deliveries of oil from Norway to Israel in 1978 therefore prompted debate in Norway.[834]

Although the Middle East grew in importance during the late 1970s, Norwegian export to these countries was lagging far behind the other Scandinavian countries. This was particularly the case for Saudi Arabia, where Norway was described as, compared to Denmark and Sweden, "unfortunately hopelessly behind".[835] The difference in exports by the Scandinavian countries can be seen in Table 9 below.

[832] 1982 "Saudi Bulk Transport Ltd. bragte Norcem 35 mill. kr. i 1981" *Nytt i Norcem*: 1-82.
[833] 1976. Vurdering av de oversjøiske områder. *Handelsdepartementet –Avdeling for utenrikshandel: Da-0136.*
[834] 1978. «Drakamp om norsk olje til Israelerne». *Dagbladet:* 16. desember.
[835] 1978. Tiltak med sikte på å fremme norsk eksport. *Handelsdepartementet - Avdeling for utenrikshandel: Da-0050.*

**Table 9:** Export to Saudi Arabia.[836]

| *Export to Saudi Arabia* | *1974* | *1975* | *1976* |
|---|---|---|---|
| *Sweden in mill SEK.* | 213 | 370 | 746 |
| *Denmark in mill DKK.* | 125 | 192 | 371 |
| *Norway in mill NOK.* | 14 | 9 | 15 |

## 6.3 Ghana 1967

The Norwegian cement producers have traditionally been an export-oriented business, which contributed to their first involvement with FDI. The first of Norcem's FDIs was to Ghana. In 1967, the year before the merger to become Norcem, Christiania Portlant Cement and A/S Dalen, through A/S Norway Cement Export, won a bid for a contract to export clinker to Ghana. This contract also included the management and a 25 per cent ownership stake in Ghana Cement Works, often known as Ghancem, where the Ghanaian state owned the remaining 75 per cent.[837] Risk was an important consideration for this investment, particularly political risk and payment issues. However, the contract was seen as lucrative because it granted Norcem the right to deliver clinker to the mill and granted a monopoly over cement production in the country. When Norcem was created the year after the Norwegian cement producers won the bid, it continued as the owner of 25 per cent of the mill.

Ghana was known as the British Gold Coast before it became independent from the United Kingdom in 1957; the country was the first of Great Britain's African colonies to become independent. Kwame Nkrumah, the leader of the independence movement in Ghana, was elected as the first prime minister; he transformed Ghana into a republic and made himself president for life in 1960. Nkrumah's main policies were pan-Africanism and an anti-Western stance, with close ties to the Soviet Union and

[836] 1978. Tiltak med sikte på å fremme norsk eksport. *Handelsdepartementet - Avdeling for utenrikshandel: Da-0050.*
[837] 1970 «Ny eksport-kontrak med Ghana sikrer topp-produksjon for 3 år». *Nytt i Norcem:* 1-70.

communist China.[838] Nkrumah also embarked on a massive industrialisation plan in Ghana, together with a strict, state-controlled economic policy. FDIs were considered as important for the development of the country, but also as forms of neo-colonialism and Western exploitation. The first significant inwards FDI to Ghana after it gained independence was in 1961 when the American consortium Kaiser-Reynolds established Volta Aluminium Company in the city of Tema.[839] At the time of independence in 1957, Ghana's economy was prospering due to high cocoa prices and income from gold. In the 1960s, however, the economy declined and the country became dependent on foreign loans for its survival.[840] Ghana had struggled with balance of payment deficits since the late 1950s.[841] Between 1960 and 1967, the decrease in cocoa prices, which was one of Ghana's main export products, caused further problems.[842] Nkrumah's regime only lasted until 1966, when he was overthrown in a military coup. Between 1966 and 1969, the country was led by the National Liberation Council, which consisted of four army officers and four police officers. They tried to counter the inflation created during Nkrumah's administration, and tried to implement a liberalised economic policy.[843] The National Liberation Council also accepted the International Monetary Fund and World Bank stabilisation package and devalued the Ghanaian currency. Although Ghana was struggling financially, the country had a relatively advanced system of roads, ports, and electricity facilities; their trading and banking systems were also developed.[844] It was under the National Liberation Council's government that Norcem first invested in Ghancem.

In 1969, Kofi A. Busia was elected as prime minister of Ghana. He continued the liberalisation policies begun by the previous government, however, Busia's

[838] Palmer, R. R., Colton, J. & Kramer, L. S. 1995. *A history of the modern world*, McGraw-Hill New York: 951-952.
[839] Tsikata, G. K., Asante, Y. & Gyasi, E. 2000. *Determinants of foreign direct investment in Ghana*, Overseas Development Institute London.
[840] Palmer, R. R., Colton, J. & Kramer, L. S. 1995: 951-952.
[841] MacDonald, G. P. 1972. Recent Legislation in Nigeria and Ghana Affecting Foreign Private Direct Investment. *The International Lawyer*, 6**,** 548-575.
[842] 1969. Records of Economic Advisor Irving Friedman UNCTAD documents 02. Folder ID: 1787057. Reference code: WB IBRD/IDA 03 EXC-1 0-4481S. *World Bank Group Archives.*
[843] Findlay, R. & O'Rourke, K. H. 2007. Power and plenty: trade, war, and the world economy in the second millennium, Cambridge Univ Press: 487.
[844] 1968-1976. Contacts with member countries: Ghana - Correspondence 01. Folder ID: 1771062. Reference Code: WB IBRD/IDA 03 EXC-10-4549S. *World Bank Group Archives.*

government was overthrown in another military coup in January 1972.[845] Thereafter, Acheampong became the new president in Ghana, a position he held until 1977. When Acheampong took over in 1972, the country had a high foreign debt; the previous government had signed several moratorium agreements and capital goods contracts with foreign investors, which Acheampong did not approve of. Acheampong's government stated that they would refuse to pay those contracts that were not considered "viable", and that they would refuse to accept the previously agreed upon moratorium agreements. Norcem was not a part of the moratorium agreement, but Norway was involved in this by virtue of Aker Mekaniske Verksted's agreement for trawlers.[846] In 1974, the Ministry of Foreign Affairs in Norway evaluated the political situation in Ghana as being relatively stable, and they believed the military government led by Acheampong would continue to hold power for the foreseeable future. They also commented on how Ghana's industrial development was slow-growing, due to their payment issues with foreign currency, which therefore led to a lack of interest in investing in the country by foreign companies. The increasing production of rice and farm products were highlighted as one of the areas where Ghana was improving.[847]

During the early 1970s, FDI by foreigners in Ghana was discouraged through the Ghanaian Business (Promotion) Act of 1970. However, this act was focused on foreign-owned enterprises in areas that did not require significant capital, technical or managerial input.[848] Thus, the act was not relevant to Norcem's investment in cement, though it permitted and contributed to the monopoly on cement that Norcem's factories benefited from.[849] In both 1973 and 1975, the ownership requirements of local citizens were further expanded, and local ownership of at least 50 per cent was required in the cement industry.[850] This too, did not affect Norcem, as the local ownership of Ghancem was already 75 per cent, through the shared ownership with the government. However, these acts highlight how changing policies by the different governments

[845] Ocran, M. K. 2007. A modelling of Ghana's inflation experience: 1960-2003.
[846] 1972. Ghana – Militærkuppet januar 1972 og utenlandsgjelden. *Garantiinstiuttet for eksportkreditt: Aa-0023.*
[847] 1974. Situasjon i Ghana. Direktoratet for utviklingshjelp (NORAD): Aa-L0019.
[848] MacDonald, G. P. 1972.
[849] Grant, R. 2001. Liberalization policies and foreign companies in Accra, Ghana. *Environment and planning A,* 33**,** 997-1014.
[850] 1975. World Bank. Ghana - National Investment Bank Project. *World Bank Group Archives.*

could potentially affect investments by foreign firms. Norcem invested in a country that was politically unstable and had high foreign debt and a high dependence on the global cocoa market.

Norway's primary involvement with Ghana was in the form of development aid. The biggest project was 'Fisketråler-prosjektet' (the Fish Trawler project). This project commenced in the mid-1960s when Aker Mekaniske Verksted, a Norwegian firm, signed a contract for the delivery of fish trawlers to Ghana. Aker then approached Norad about recruiting skilled crew for the fishing trawlers.[851] This led to Norad's involvement and cooperation with Ghana Nautical College from 1965. Norad contributed funding, equipment, and teachers to the Nautical College so that education related to fishing and trawlers' in Ghana could be improved.[852]

### 6.3.1 Ghancem: Background and investment

The involvement of Norwegian cement producers in West Africa began with the export of cement, and a notable increase in export to the area by Norwegian cement producers occurred in 1965. Christiania Portland Cementfabrik (CPC) and Dalen Portland Cementfabrik, through Norwegian Cement Export Ltd., gained a contract for the delivery of cement for the building of the Kainji-dam that same year;[853] the dam was built across River Niger in Nigeria. Norcem delivered the first cement to the dam in 1965, and the contract lasted until 1967.[854] Winning this bid was an important starting point for Norcem's continued and steadily increasing involvement in the cement industry in Africa during the 1960s and the 1970s.[855]

A/S Norway Cement Export won the bid to manage and deliver clinker to the two mills in Ghana in 1967, in competition against four other cement producers.[856] The other competitors bidding for the contract were cement producers from France and England,

[851] Simensen, J. 1991. Utdanning som u-hjelp: NORAD og Ghana Nautical College 1964-1980, Ad Notam.
[852] St. Meld. Nr. 51 (1967-1968). Årsmelding og regnskap for Norsk Utviklingshjelp for 1967.
[853] Gartmann, F. 1990: 296.
[854] Fasting, K. & Gartmann, F. 1980: 152.
[855] 1969 "Norcem eksporterer i år 1,1 million tonn cement", *Nytt i Norcem:* 1-69.
[856] 1967 "Ghana avtalen blir undertegnet i Accra" *Aftenposten*, 6. juni.

and much larger firms.[857] Norway may have had an advantage over the competition by virtue of having not been a former colonial power; Heiberg, Norcem's managing director, similarly emphasised the importance of Norway being unburdened by a colonial past.[858] The involvement between Norad and Ghana Nautical College around the same time might also have helped A/S Norway Cement Export to secure the contract. The fact that the English company that had managed and delivered clinker to one of the mills previously had been caught bribing Nkrumah's former government likely also had an impact. In the aftermath of Nkrumah's presidency, this English company was forced to admit bribing the government with over £2 million. Their contract for the management of the cement mills was thereafter cancelled, and a new firm had to be hired.[859] This was common in industries that had been closely connected to Nkrumah before the coup.[860] The cement industry contract was one of 12 bids for private international participation in Ghana's state-owned industry offered by the government in 1967.[861] The Ghanaian government retained majority ownership in most of the industries, while private firms were offered a minority share.[862] The Norwegian cement producers were thus not the only foreign company to acquire a minority share in a state-controlled industry in Ghana.

The agreement between Ghana and Norway Cement Export was signed in May 1967, and Norcem's forerunner became the owner of 25 per cent of the company Ghana Cement Works Ltd (Ghancem). The Ghanaian government was the owner of the remaining 75 per cent of the company.[863] The Ghanaian government was very involved in the national economy, and was the majority shareholder in over 400 different enterprises.[864] Norcem's contribution to the mills and the share capital was 5 million NOK, and 250,000 had to be paid in pound sterling.[865] Hence, the contract contributed

[857] 1967 "Norsk sementklinker til fabrikker i Ghana", *Aftenposten*, 27. mai.
[858] Interview with Heiberg, August 2015.
[859] 1967. Anngående norsk deltagelse i cementmøller i Tema og Takoradi. *Direktoratet for utviklingshjelp (Norad): Da – L0793.*
[860] Blunt, M. 1970. State Enterprise in Nigeria and Ghana: The End of an Era? *African Affairs*, 69(274), 27-43.
[861] 1963 «A/S Norway Cement Export». *Garantiintituttet for eksportkreditt: Ab-L0021.*
[862] Blunt, M. 1970.
[863] 1967 "Styrets Beretning" in: Christiania Portland Cementfabrik: Årsberetning og regnskap.
[864] Grant, R. 2001.
[865] 1971. Att.: Rådgiver Hans H. Engebrigtsen: This Agreement. *Direktoratet for utviklingshjelp (Norad): Da – L0793.*

to bringing foreign currency to Ghana. Ghancem consisted of two mills for grinding clinker, which is burnt raw material that was crushed to cement. One of the grinding mills was in Tema, the seaport of the capital, Accra. This plant had a production capacity of approximately 200,000 tons annually and had been in operation since March 1966. The second grinding mill was in Takoradi, and had a production capacity of approximately 450,000 tons annually. This mill was to be up and running by the beginning of 1968.[866] In 1980, the combined production capacity of the two mills was expanded to 1.4 million tons annually.[867] Ghancem received pioneering enterprise status, which gave it certain advantages such as the right to transfer dividends to foreign owners. The subsidiary was also exempt from customs on import of cement-related products.[868] At this time, Ghancem was also the only cement company in Ghana.

The Norwegian cement producers also gained a contract for delivery of all the clinker required by Ghancem for the next two years. The Ghanaian government had suggested that this could become a long-running contract. Clinker are easier to transport than cement, especially by sea, making this a more straightforward solution for transport of a large volume of cement. Ghancem received clinker that was produced and shipped from Norway. The expected demand for clinker by Ghancem was approximately 800,000 tons for the first two years after the agreement was signed;[869] the agreement had an expected export worth of approximately 60 million NOK.[870] However, the deliveries for this first contract period actually totalled 811,849 tons of cement, worth approximately 79 million NOK. Compared to the 5 million NOK Norcem invested in Ghancem, it is clear that the contract for delivery of clinker was financially more important than the FDI itself. In the contract, the Ghanaian government promised to "[…] make currency available for the payment of clinker whenever it falls due". The contract also stated:

> *If, for reasons of war, strike, lock-out or other force majeure, the Seller is unable to deliver or the Buyer unable to receive, either Party is entitled to reduce the*

[866] 1967 "Styrets Beretning" in: Christiania Portland Cementfabrik: Årsberetning og regnskap.
[867] 1978 "Ghancem øker kapasiteten" *Nytt i Norcem*: 4-78
[868] 1963. A/S Norway Cement Export. *Garantiintituttet for eksportkreditt: Ab-L0021*.
[869] 1967, Christiania Portland Cementfabrik: Årsberetning og regnskap.
[870] 1967, "Norsk sementklinker til fabrikker i Ghana", *Aftenposten*, 27. Mai.

> *Contract quantity by an amount corresponding approximately to the quantities which otherwise would have been delivered in the period such conditions prevail.*[871]

Through the above stipulation, the contract took precautions for situations such as currency issues, war and other conditions that are typically associated with politically unstable countries.

A new contract between Norcem and Ghana for deliveries of clinker was signed in 1970, this time for three years. The contract was more comprehensive than the earlier contract, and it included regulations on the quality of the cement, where the cement should be delivered from, and the quality of the shipping vessels.[872] The agreement was described by Norcem as "the biggest cement/clinker agreement in history", and it had an expected worth of 125 million NOK.[873] In addition to this, Norcem delivered paper bags, spare parts, and plaster to the factory worth 35 million NOK. The price for the deliveries of clinker and other products was considered "internationally competitive", and Norcem was paid as well for deliveries to Ghana as it would have been for deliveries to other countries.[874] This agreement meant that the delivery of the majority of overproduction of cement at Norcem's factories in Norway was secured for the three years this contract was signed for. Financially, the bid to deliver clinker to the mill was worth much more than the management of the mill and the minority ownership. It is therefore likely that, for Norcem, the delivery of clinker was a more important aspect of the investment than the running of the factory; the management and minority ownership seem to have been more of a necessity to ensure the rights to deliver clinker, than an important investment in itself. This is further highlighted by the fact that Norcem charged more for the managing of the mills after the contract for clinker deliveries expired.[875]

[871] 1971. Att.: Rådgiver Hans H. Engebrigtsen. *Direktoratet for utviklingshjelp (Norad): Da – L0793.*
[872] Ibid.
[873] 1970 "Ny eksport-kontrakt med Ghana sikrer topp-produksjon for 3 år" *Nytt i Norcem*: 1-70
[874] 1971. Att.: Rådgiver Hans H. Engebrigtsen. *Direktoratet for utviklingshjelp (Norad): Da – L0793.*
[875] 1982 "Nye avtaler for Ghacem", *Nytt i Norcem*: 4-82.

In 1969, Norcem undertook research on the limestone deposit in Ghana and the possibilities of producing clinker locally.[876] This had been a requirement in the original contract between Norcem and the Ghanaian government from 1967.[877] Norcem looked into an area with extensive limestone deposits of good quality, but the associated report concluded that import of clinker would be cheaper than producing locally. The main reason for this was that Ghanaian limestone was complicated to extract; expensive investments in transport would be required, and the rainy season would further complicate the extraction process.[878] Several other firms also researched the possibility of extracting limestone from Ghana, and the majority reached the same conclusions as Norcem.[879] Thus, Norcem retained the lucrative agreement for delivery of clinker, and the agreement remained in place until Ghana built a clinker factory in 1980 in cooperation with Togo and the Ivory Coast. Norcem thus benefitted from 13 years of a monopoly on cement deliveries to Ghana.

The managers of Ghana Ghancem were Norwegians. The number of European workers at the mills decreased from 16 in 1967, to seven by 1973. Ghanaian workers who were expected to be promoted to higher positions within Ghancem were sent to Norway for training, and 17 workers had visited the cement factories in Norway by 1972.[880] To establish a training scheme for Ghanaian citizens was set out as a requirement in the Ghana Business Promotion Act of 1970, but the government had been relaxed in implementing the regulation.[881] However, Norcem also focused on training locals workers in several of its later FDIs. Ghancem's board consisted of six members, and Norcem had the right to appoint three of these; it also had the right to appoint the administrative director, who would have the decisive vote in cases of a split between the board members.[882] Norcem thus had the decisive vote in the management of and decisions regarding the factory, even though it only held a minority share.

[876] 1969 "Norcem eksporterer i år 1,1 million tonn cement", *Nytt i Norcem:* 1-69.
[877] 1971. Att.: Rådgiver Hans H. Engebrigtsen. *Direktoratet for utviklingshjelp (Norad): Da – L0793.*
[878] 1973 "Bedriftreportasjen XII", *Nytt i Norcem*: 2-73.
[879] 1974. Ghana - Towards efficient self-reliance: the role of manufacturing. *World Bank Group Archives.*
[880] 1973 "Bedriftreportasjen XII", *Nytt i Norcem*: 2-73.
[881] MacDonald, G. P. 1972.
[882] 1963. A/S Norway Cement Export. *Garantiintituttet for eksportkreditt: Ab-L0021.*

By 1971, the consumption of cement in Ghana was 500,000 tons annually, and consistently increased; all the cement used in Ghana was provided by the two factories Norcem owned and managed. However, there were some issues, and in 1972 the future of the investment in Ghana was unclear. The agreement for the delivery of clinker by Norcem to Ghana was due to end that year, and Norcem was not sure if it would sign a new agreement. There was a high potential for cement sales to the rest of the world, and Norcem was thus unsure whether to continue prioritising export to a country with an unstable financial situation and with negative solvency.[883] The years between 1972 and 1975 were financially challenging in Ghana; the volume of imports fell by 25 per cent, and import restrictions were implemented.[884] Nevertheless, the situation between Norcem and Ghancem was resolved in June 1973 and a new agreement was signed. Norcem agreed to deliver a proportion of the Ghanaian clinker supply until 1975, but not all of it. Norcem chose to prioritise its deliveries of cement to the USA over Ghana, as it did not have the capacity to deliver all of the cement Ghana required while also meeting its commitments in the USA. A payment agreement between Ghana and Norcem was also organised. The cement imported to Ghana by Norcem from 1972 until the new agreement began in June 1973 had been pre-paid in cash.[885] Through a new payment agreement, a new government in Ghana, and the improving economic situation in the country, Ghana's debt to Norcem decreased from 59 million NOK to 6.7 million between 1972 and 1974.[886] The Guarantee Institute for Export Credit (GIEK) had covered half of the outstanding 59 million NOK, and had thus contributed to limiting the financial loss. This is one of the few times when any of the companies in this research used the GIEK guarantees to cover financial losses. Cement usage continued to grow in Ghana and in 1975, when there was a market failure in the USA, this loss of income was compensated for through increased profit in Africa.[887]

[883] 1973 "Bedriftreportasjen XII", *Nytt i Norcem*: 2-73.
[884] 1977. Ghana: Economic Position and Prospects: Prospects for Exports of Processed products; Financial Structure - A Flow-of-Funds Approach. *World Bank Group Archives.*
[885] 1973 "Ny klinkeravtale med Ghana", *Nytt i Norcem*: 3-73.
[886] 1974 "Norcem høyt i kurs hos Ghanas myndigheter", *Nytt i Norcem*: 2-74.
[887] 1975 "Fjoråret relativt godt –vi håper å kunne unngå store rystelser", *Nytt i Norcem:* 4-75.

### 6.3.2 Social and political factors

"A job in Ghancem is so popular that many Africans use their helmet private as a sign of status" – Norcem's company magazine, 1973.[888]

Norcem emphasised the social factors related to the investment in Ghana, such as a focus on workers' rights and contribution to the local society. The vital role this played for Norcem can be seen through how the social factors were highlighted. The investment in Ghana was presented in Norway, both within and external to Norcem itself, as an investment that was bringing about social improvements. *Nytt i Norcem,* the firm's company magazine, labelled its investments in Ghana "Mønsterbedrift", meaning a firm for others to look up to and follow, due to its social contributions.[889] The World Bank also noted Norcem's social focus in Ghana, stating in their report that "The firm provides unusually good amenities for its employees (including a carefully composed main meal each day for every employee; and an efficient health service)".[890] The workers at Ghancem received free healthcare for themselves, a wife, and up to three children. In addition, Norcem supplied workers with the clothing they wore at the factory, and the workers received a bonus every year.[891] Ghancem employed approximately 400 local people.

Presenting the factory as socially beneficial for the local workers created several benefits. It helped Norcem to build an excellent reputation both in Africa and in Norway, which in turn was useful for securing support for the investment in Norway, as development aid was seen as important politically in Norway.[892] It was likely also helpful in securing future investment possibilities in Africa. This policy of social involvement surrounding an investment has been utilised by other firms that have invested in Africa. For instance, the French aluminium company, Pechiney, invested in Cameroon in the 1950s; it also had to prove its willingness to contribute to the

[888] 1973 "Bedriftreportasjen XII", *Nytt i Norcem*: 2-73.
[889] Ibid.
[890] 1974. Ghana - Towards efficient self-reliance: the role of manufacturing. *World Bank Group Archives.*
[891] 1973 "Bedriftreportasjen XII", *Nytt i Norcem:* 2-73.
[892] Østerud, Ø. 2006. Lite land som humanitær stormakt?. *Nytt norsk tidsskrift*, 23(4), 303-316.

development of the country, and Africa as a whole, in order to maintain a good relationship with the local government.[893]

Environmental risk, particularly political risk, was one of the most important risks faced by Norcem in Ghana. Norcem witnessed several changes in the political leadership in Ghana throughout its involvement in the cement mills. The first change in leadership directly experienced by Norcem was in 1969, just two years after it first won the bid to run the Ghancem mills. Norcem held a 25 per cent ownership share, with the remainder owned by the Ghanaian state. The involvement of the state made the investment easier and less risky for Norcem in many ways because the government had responsibility for the production and the quality of the cement.[894] Several firms in Ghana was nationalised during the 1970s, and the government in Ghana wanted to hold a more significant share of the industrialisation that was unfolding in the country. Ghancem was safer from nationalisation and confiscation issues than other foreign companies because it was already a partly state-owned factory.[895] Maintaining a positive relationship with the Ghanaian state was important for the investment; however, it was also important, according to Heiberg, not to be seen to be too close to the government, as this could cause problems when the government changed. "So it was a balancing act to keep a sensible relationship in a proper way and not be seen as a part of the regiment which at any time was in charge".[896] Whenever the government changed, new relationships had to be formed, and this was often a complicated process.[897] Bribery of state officials was an important part of this. Norcem benefited from a monopoly on cement in Ghana that lasted until the late 1980s. Import regulations, however, hampered the profitability of the mill, as did payment restrictions; at some points, as little as one third of the cement demand in Ghana was covered by the imported clinker as a result of these issues.[898] Changing governments,

[893] Loison, M. C., Berrier-Lucas, C., & Pezet, A. 2018. Corporate social responsibility before CSR: Practices at Aluminium du Cameroun (Alucam) from the 1950s to the 1980s. *Business History*, 1-51.
[894] Interview with Heiberg, August 2015.
[895] 1973 "Bedriftreportasjen XII", *Nytt i Norcem*: 2-73.
[896] Interview with Heiberg, August 2015.
[897] Ibid.
[898] 1982 "Nye avtaler for Ghacem", *Nytt i Norcem*: 4-82.

changing import regulations, and payment restrictions thus made the investment in Ghana less stable for Norcem.

The lucrative clinker delivery agreement only lasted until 1980. In 1973, Norcem signed an agreement with Togo committing to provide them with know-how relating to cement production.[899] This resulted in a clinker-producing company (CIMAO) opening in Togo in the 1980s. This company was the result of cooperation between Ghana, Togo, and the Ivory Coast. The government in Ghana decided that all the clinker for the mills in Ghana should be provided by this company. The price of the clinker imported from the factory in Togo was, according to Norcem, between 40 and 50 per cent higher than the global market price, but Norcem was given no choice in the matter.[900] A new agreement was formed between Norcem and the government in Ghana, where Norcem would be paid for the management of the factories in Ghana, in order to compensate for the loss of income Norcem suffered as a result of no longer delivering the clinker. Discussions regarding this agreement had been ongoing throughout several governments in Ghana; four different industrial ministers had been involved in the discussions before an agreement was reached.[901]

Guarantees from the GIEK were used by Norcem to insure against different risks, both before and after the investment in Ghana. Norcem applied for guarantees for the export of clinker to Ghana in 1967 under regular scheme. The export it wanted to insure included plaster, clinker, and paper bags to Ghancem, for a period of 12 months.[902] The guarantees were later extended several times to cover continuing deliveries. The deliveries of clinker were covered at a level of 85 per cent for political risk and 75 per cent for commercial risk. However, when Norcem applied for guarantee coverage under the scheme for developing countries in 1971, this was not granted. The GIEK and Norad decided that the increase in financial commitments Norcem's application required of them, together with the payment risks associated with Ghana in the early 1970s, were too substantial. Furthermore, Norad argued that development aid could be

[899] 1973 "Mer know how til Afrika", *Nytt i Norcem*: 4-73.
[900] 1983 "Produksjonen stabil i Ghana". *Aftenposten*, 24 February.
[901] 1982 "Nye avtaler for Ghacem", *Nytt i Norcem*: 4-82.
[902] 1967. Styrets møte Onsdag 27. september 1967. *Garantiinstiuttet for eksportkreditt: Aa-0006.*

used more beneficially in other circumstances.[903] Norcem therefore had to continue to be guaranteed under the regular scheme for export credit. However, Norcem paid the same premium and had the same insurance under the regular scheme, as it would have had under the development guarantee scheme. Thus, the decision to not grant insurance under the development scheme would not have affected the investment to any significant level.

According to Norad, Ghana had paid Norcem for the deliveries to the cement mills, but there had been an average of three-month-long transfer delays during 1971. Further, Norad argued, "The risk of the guarantee to be invoked because Norcem does not receive payment for their clinker, must probably be said to have increased lately".[904] Norad was correct in this, and in 1972 and 1973, the GIEK paid approximately 28 million NOK in total to Norcem in compensation for export of clinker to Ghana, which had not been paid for as promised due to Ghana's lack of enough foreign currency.[905]

Norcem also applied for guarantees for the investment itself, and was granted guarantees against political risk for its investment under the development scheme.[906] This was attached to certain conditions, however. It was not enough to simply have 25 per cent ownership of the factory; Norcem also needed to have a decisive vote in how the factory was managed and run if GEIK was to grant the guarantees.[907] Norcem easily satisfied this requirement, as it was responsible for the daily management of the factory and its appointee would have the decisive vote on the Ghancem board. Norcem also applied for guarantees for the dividends from the subsidiary; this guarantee covered transfer and conversion risks for dividends of up to 10 per cent of the share capital earned during the first two years of Norcem's investment. Norcem paid out 7

[903] 1971. Ghana – A/S Norway Cement Export ltd – Søknad om garanti. *Direktoratet for utviklingshjelp (NORAD): Da – L0793.*
[904] 1971. Søknad fra Norway Cement Export Ltd. Om garantier for eksport av klinker m.v. under særordningen for utviklingsland til Ghana Cement Works ltd. *Direktoratet for utviklingshjelp (NORAD): Da – L0667.*
[905] 1979. 25/10 1979. Garantiinstiuttet for eksportkreditt: Aa-0024.
[906] 1967. Møte i utvidet styre 1. juni 1967. *Garantiinstiuttet for eksportkreditt: Styreprotokoller Aa-0022*.
[907] 1979. 25/10 1979. *Garantiinstiuttet for eksportkreditt: Aa-0024.*

per cent dividends the first year, and 14 per cent the second year, though transferring this to Norway was problematic due to transfer restrictions. However, the transfer delay was an expected problem in relation to investments in Ghana and therefore not something that was covered by the GIEK guarantees.[908]

Norcem remained involved in the factory in Ghana throughout the firm's existence; the participation in this FDI gave it knowledge of the region and of managing foreign factories in politically unstable countries. Financially, the investment was a success, in particular in the earlier years where Norcem exported a large amount of clinker to the mills. The investment was, as this chapter has shown, likely more concerned with gaining the lucrative clinker-delivery agreement than profiting from the investment itself. Ghancem is today owned by the German firm HeidelbergCement, which is the same company that now owns Norcem. Norcem's involvement in the mill received media attention due to court cases in 2006 and 2007, where Norcem's representative in Ghana was accused of stealing 25 million NOK for personal gain, rather than using the money for its intended purpose, namely briberies.[909]

## 6.4 Liberia 1977

There were several years between Norcem's first and second FDIs, but by 1976-1977, several FDIs were under development. Norcem's next FDI in cement, and its third FDI altogether, was to Liberia in 1977. Norcem had invested in plastic boat production in the Philippines the year before, while investments in both Ras al-Khaimah and Saudi Arabia were being planned at the same time as the investment in Liberia was completed. The investment in Liberia shared many similarities with the investment in Ghana 10 years earlier. The ownership was, for example, again shared with the local government, and the investment was heavily dependent on income from export of clinker. Due to the similarities with the investment in Ghana, the investment in Liberia will be presented in this section, which follows the account of the investment in Ghana, rather than chronologically. Norcem's second FDI to the Philippines in 1976 will be

[908] 1974. Utkast til protokoll for møtet i det utvidete styret den 10/10-1974. *Direktoratet for utviklingshjelp (Norad): Da –L0793*
[909] Vanvik, G. 2007. Grå Sement - Svarte Penger. *Dagens Næringsliv Magasinet*.

presented in the next section. Norcem secured the majority of the Liberia Cement Company, also known as 'Cemenco' in May 1977. This subsidiary consisted of a mill that would grind clinker to cement, much like the firm in Ghana.[910] The mill in Liberia had been in operation since 1968, and it had the capacity to produce 100,000 tons of cement annually.[911]

Norcem had delivered clinker to this mill since it first began operating in 1968, and according to Norcem themselves, only one out of all the shipments of clinker to the mill had not come from Norcem.[912] By 1977, the consumption of cement in Liberia was increasing, and Norcem expected this to increase further, which meant that delivery of clinker to the mill was seen as an increasing source of income. This is one of the main reasons Norcem considered investing in the mill; the acquisition would ensure that Norcem could continue to deliver clinker to Liberia and profit from the increase in cement consumption in the country. Export potential to neighbouring countries was also highlighted within Norcem as a reason for investing in the mill.[913]

Liberia is one of the few countries in Africa that has never been colonised. The country have close ties with the USA, since the country had been founded by former American citizens. Throughout most of the country's history, Liberia has been ruled by a single political dynasty, the True Whig Party. Under the True Whig Party, William Richard Tolbert Jr. ruled Liberia between 1971 and 1980. In 1980 he was killed in a *coup d'état* led by Samuel Doe, who became the president for the next 10 years. Liberia is a small country with a high focus on export; rubber and iron ore have been amongst Liberia's primary export products. The financial situation in the country was substantially impacted by global markets, and economic growth stagnated in Liberia between 1974 and 1978 in line with the financial troubles in other parts of the world.[914] Norway's relationship with Liberia has primarily been concentrated around shipping and the shipping industry; several Norwegian shipping firms had ships registered in Liberia

[910] 1977 "Klinkereksport sikret ved kjøp av cement-mølle" *Nytt i Norcem:* 2-77.
[911] 1979 "Liberia Cement Corporation" *Nytt i Norcem*: 3-79.
[912] 1977 "Klinkereksport sikret ved kjøp av cement-mølle" *Nytt i Norcem:* 2-77.
[913] 1977 "Norcem kjøper Liberia fabrikk". *Aftenposten*, 2. September.
[914] 1979. Liberia - Current economic situation and prospects. *World Bank Group Archives.*

under Flags of Convenience during the 1970s.[915] The shipping crisis in 1973 contributed to an increase in temporary 'flagging out' of Norwegian vessels to countries abroad.[916]

Norcem held the majority share (75 per cent) in the cement mill in Liberia, which came at a price of approximately 7 million NOK.[917] The Liberian state held the remaining 25 per cent ownership.[918] This has several similarities to the ownership structure of the mill in Ghana, as the government was involved as a shareholder in both mills. This meant that Norcem could both draw and build on its experience from the investment in Ghana. Having the state as a partner was an important risk-mitigation strategy in Liberia, just as it had been in Ghana. A firm partly owned by the state was better secured against risks such as nationalisation. Another similarity between the investment in Ghana and that in Liberia was the high focus on export of clinker to the mill. In both cases, this was the primary source of income for Norcem, rather than the investment and the management of the mill itself. In addition, the cement factory in Liberia was portrayed as a beneficial social project, as it was in Ghana. When Norcem bought the shares in the mill in Liberia, it also donated funds to a social housing project; deliveries of Siporex-Ytong (lightweight concrete) from Norcem's production in Norway formed a part of this gift.[919] Norcem applied for guarantees through the GIEK for its investment in and deliveries of clinker to Liberia; these were granted, but the coup in 1980 made it harder for Norcem to continue to receive the guarantees for deliveries of clinker, as the GIEK saw the situation as unstable and was thus less willing to grant guarantees for export to Liberia.[920]

The investment in Liberia can be considered a success, as Norcem continued to deliver clinker to Liberia for years after it first invested. Norcem was also involved with two other firms in Africa, in 1979. One was a stone-crushing factory in Liberia; Norcem

[915] Svendsen, T. A. & Jullum, R. 1976. *Internasjonalisering av norsk skipsfart*, Bergen, Norges Handelshøyskole: 40-41.
[916] Brautaset, C., & Tenold, S. 2008. Globalisation and Norwegian shipping policy, 1850–2000. *Business History*, 50(5), 565-582.
[917] 1977 "Klinkereksport sikret ved kjøp av cement-mølle" *Nytt i Norcem:* 2-77.
[918] 1979 "Liberia Cement Corporation" *Nytt i Norcem*: 3-79.
[919] 1978 "Norcem har overtatt aksjemajoriteten i Liberia Cement Corp." *Nytt i Norcem:* 2-78.
[920] 1980. Garanti nr. 10738. *Garantiinstituttet for eksportkreditt: Da-L0137*

had 40 per cent ownership of this subsidiary, while a Liberian citizen and a Swedish citizen who lived in Liberia were the owners of the remaining shares. Norcem again applied for investment guarantees from the GIEK to cover its investment. The GIEK considered both of the other participants in the joint venture to be appropriate participants, and approved the guarantees.[921] For its second project in Africa in 1979, the Eastern Bulkcem Company in Nigeria, Norcem again applied for guarantees. This subsidiary owned port equipment to transport cement from ships to land, and was similar to the Saudia Bulk Transport company Norcem had invested in the year previously. Norcem applied for coverage over a 10-year period for the 11.3 million NOK it invested into the Eastern Bulkcem Company.[922] This was a relatively large investment for Norcem, especially compared to its other investments in Africa. The insurance was primarily to cover the political risk, since the income possibilities were seen as greater than they would have been in Norway.[923]

Norcem thus continued to invest in Africa during the 1970s and, by the end of the decade, the company had four separate FDIs in Africa. There are several similarities between Norcem's investments in Africa. Political risk was often a major concern, and Norcem focused on personal contact with the local government, in particular in Liberia and Ghana, where it had a monopoly on cement production and the government was a shareholder in the subsidiaries, to manage this risk. The mills in both Ghana and Liberia still exist today. HeidelbergCement runs the mills, and thus Norcem's first FDIs in Africa continue under the company's new owners.[924]

## 6.5 Philippines 1976

Norcem's second FDI was in the Philippines in 1976. In January of that year, Norcem opened a plastic boat production facility in Bataan.[925] This investment was the first that Norcem had made outside of its core area, and the first FDI in an area that was not

[921] 1979. 21/06 1979. *Garantiinstiuttet for eksportkreditt: Aa-0024.*
[922] Ibid.
[923] Ibid.
[924] Schaller, A. 2013. *HeidelbergCement expands its cement capacity in Liberia* [Online]. Available: http://www.heidelbergcement.com/en/node/1368 [Accessed 10/11 2016].
[925] 1976 "Fjord Plast etablert med fabrikk på Filippinene", *Nytt i Norcem*: 1-76.

directly related to the cement industry. It was also Norcem's first green field investment. Norcem was looking to get involved in areas other than cement, in order to diversify. The background to this investment was Norcem's takeover of the company Fjord Plast, a plastic boat-producing company in Norway, in 1973. The company had been struggling, and Norcem took it over with the support of the Norwegian 'Fund for new industrial initiatives'.[926]

Norcem had been involved with plastic production and boat production prior to the acquisition of Fjord Plast. The first production of plastic-related products was the production of fibreglass in connection to Norcem's production of Eternit (asbestos cement).[927] Asbestos-based products increased in popularity during the first half of the 1900s, primarily due to their ability to withstand heat. However, from the 1920s and 1930s it became known that asbestos could be injurious to health, and the substance was later linked to cancer and pulmonary diseases. As increasingly more health issues related to asbestos were discovered, it was decided to cease production of the asbestos cement.[928] Norcem ended production of asbestos cement in 1978, but continued with the fibreglass production that had, by that time, developed to include several different fibreglass products. One of those products was plastic boats, which is how the firm first got involved with this industry.[929] It was Norcem's background in and knowledge of this production that prompted the Norwegian state to encourage Norcem to acquire the struggling company, Fjord Plast.[930] The boats Norcem had previously produced had been smaller in scale than what Fjord Plast was making, both in terms of their physical size and the volume produced.[931] It was, therefore, the acquisition of the company Fjord Plast in 1973 that led to Norcem becoming a significant producer of plastic boats and which lay the groundwork for Norcem's FDI to the Philippines.

[926] Instil. St. Nr. 160 (1974-1975). Innstilling fra industrikomitéen om virksomheten til «Fondet for nye industrielle tiltak M.V.»
[927] Gartmann, F. 1990: 148.
[928] Tweedale, G. 2001. Magic mineral to killer dust: Turner & Newall and the asbestos hazard. Oxford University Press.
[929] 1973 "Bedriftreportasjen XII", *Nytt i Norcem*: 3-73.
[930] Interview with Heiberg, August 2015.
[931] 1970 "Norcem Marine på 3. plass blant Norges båtprodusenter" *Nytt i Norcem:* 1-70 and Interview with Heiberg, August 2015.

Fjord Plast produced plastic boats primarily for the upper classes in Japan and Australia, markets that, according to Norcem, were geographically distant from its traditional markets in Western Europe.[932] *Nytt i Norcem* argued that an investment closer to these markets was necessary because "[…] the large transport costs have proven it impossible to deliver the smaller boats from Fjord to this market".[933] The distance between the company and its primary markets had contributed to the firm's struggles in the early 1970s; increasing international competition, together with rising oil prices following the oil crisis, increasing labour costs in Norway, and growing export costs all contributed to the difficulty in selling Norwegian-produced boats to geographically distant markets. FDI was seen as the best solution for continued sales to the Asian and Australian markets. At the same time as Norcem invested in the Philippines, it also decided to close several of the production units in Norway. The new factory in Bataan opened in January 1976;[934] it mainly produced the smaller, 19-feet boats, but also produced some 24-feet boats. The initial aim was to produce and sell approximately 70 boats during the first year of production; however, the factory only managed to produce 50 boats.[935] The future anticipated production was estimated at between 130 to 160 boats annually,[936] which would primarily be sold in Japan, Indonesia, Hong Kong, and Australia.

The decision to build a small plastic boat factory in the Philippines was taken in 1975. The Philippines was not the only country that was considered for this FDI; Norcem had considered several other Southeast Asian countries before deciding on the Philippines. One of the reasons for the decision was the size of the population, 40 million people, which suggested a potentially large market in the future.[937] The boat production was also considered the first step in a potentially increasing line of products produced in the country.[938]

[932] 1974 "Fjord Plast's situasjon er gunstig tross alt", *Nytt i Norcem* nr. 1-74.
[933] 1975 "Fjord's plast etablering på Filippinene et faktum", *Nytt i Norcem:* 2/3-75.
[934] 1976 "Fjord Plast etablert med fabrikk på Filippinene", *Nytt i Norcem*: 1-76.
[935] 1975 "Fjord's plast etablering på Filippinene et faktum", *Nytt i Norcem:* 2/3-75.
[936] 1977 "Fjord Phillippines mer enn fordobler sin produksjon", *Nytt i Norcem:* 1-77.
[937] 1976 "Fjord Plast etablert med fabrikk på Filippinene", *Nytt i Norcem*: 1-76.
[938] 1975 "Fjord's plast etablering på Filippinene et faktum", *Nytt i Norcem:* 2/3-75.

The Philippines consists of a group of islands in Southeast Asia. It was an American colony between 1898 and 1946, but the country gained independence after three years of Japanese occupation during the Second World War. The Philippines maintained a close relationship with the USA in the years following its liberation, and the economic ties between the two countries remained, with fixed exchange rates, and special treatment of American investors. Ferdinand Marcos was elected president of the Philippines in 1965, and was re-elected in 1969 before declaring martial law in order to strengthen his political power in 1972. The country was ruled by Marcos via an authoritarian regime during the 1970s, until he was forced to resign in 1986. The economic strategies employed in the Philippines during this period focused on agricultural development, export of agricultural and forestry products, and foreign borrowing.[939] An Investment Incentive Act (RA 1568) was implemented in 1967, which established the Board of Investments and worked toward creating incentives for investments in the Philippines. The Investment Incentive Act also allowed that investments in pioneer industries could be wholly foreign-owned, while investments in non-pioneer sectors were restricted to a maximum of 40 per cent equity. These maximum foreign ownership restrictions could be relaxed if the company exported at least 70 per cent of its product. In the following year, 1968, the Foreign Business Regulation Act (RA 5455) was implemented; this regulated foreign businesses with over 30 per cent equity share.[940]

It was during Ferdinand Marco's rule that Norcem invested in the Philippines. At this time, the country was lagging behind in attracting export-oriented FDIs compared to other Asian countries. It was primarily the USA that invested in the Philippines in the 1970s, while Japan, Taiwan, and South Korea began to invest in the late 1970s and early 1980s.[941] Norcem was the first Norwegian company to establish an FDI in the Philippines,[942] and relied on contacts and with the political leadership to compensate for the lack of other Norwegian firms with connections and experience in the country.

[939] Boyce, J. K. 1993. The Philippines: The political economy of growth and impoverishment in the Marcos era, University of Hawaii Press. 1-11.
[940] Mercado-Aldaba, R. A. 1994. *Foreign direct investment in the Philippines: a reassessment*, Philippine Institute for Development Studies.
[941] Ibid.
[942] 1976 "Norcem-fabrikk på Filippinene". *Aftenposten*, 30 Januar.

For example, Norcem's managers met with Ferdinand Marcos to discuss the investment,[943] and Norcem also collaborated with a local company to gain local knowledge. The investment, a boat factory, was a joint venture between Norcem and a Filipino manufacturer, Wilfredo Viray; Norcem owned 51 per cent of the factory and thus was the majority owner.[944]

The boat factory was located in Bataan, a so-called "Free Trade Zone", [945] and the first Free Trade Zone area in the Philippines. The zone had been established in 1972 under Presidential Decree 66: Export Processing Zones, enacted during Marco's martial law period.[946] The free zone policy aimed to attract more foreign investors to the Philippines and to make the country a centre for international trade. Unlike the rest of the Philippines, businesses that established themselves in this area could be 100 per cent foreign-owned. There were also special tax regulations for firms located in the free zones; merchandise, raw material, machinery, and supplies that were brought into the area for use in manufacturing were, for example, exempt from customs and internal revenue regulations. All factories in the free zone had to be export-oriented and a majority of their products had to be produced for export.[947] As Norcem's primary markets for the boats were Japan and Australia, production for export had always been the intention. The placement of the factory in a Free Trade Zone also helped protect Norcem against political risk, as it was assumed that a leadership change in the Philippines would have less impact on a firm in this zone.[948]

The building of the factory cost a little under 1 million NOK, so the financial investment was not large; by comparison, the investment in the cement mill in Liberia the following year was 7 million NOK. The decision to build the factory in a Free Trade Zone also meant that Norcem was exempt from certain fees related to investing in the Philippines. Three Norwegian citizens moved to the Philippines to participate in

[943] Interview with Heiberg, August 2015.
[944] 1975 "Fjord's plast etablering på Filippinene et faktum", *Nytt i Norcem:* 2/3-75.
[945] Ibid.
[946] Mercado-Aldaba, R. A. 1994.
[947] 1972. Presidental Decree No. 66 November 20, 1972. Creating the export processing zone authority and revising republic act no. 5490.
[948] Interview with Heiberg, August 2015.

the management of the factory, and the manager of the factory was a Norwegian who had been living in the Philippines previously.[949] Recruiting Norwegian managers is something that Norcem did in most of its FDIs, but in particular for the investment in Ghana and the management of the factory in Ras al-Khaimah.

The plastic boat factory in the Philippines operated with a deficit in its first year, and Norcem did not expect the results to improve within the next few years. The factory had only produced approximately 50 boats, which was fewer than expected, but had managed to sell all of these, and there was still a belief in the future success of the investment.[950] However, the investment never performed as hoped for, and Norcem withdrew from the Philippines after only a few years. In regard to profit, the investment was ultimately unsuccessful. Norcem had also looked into the possibility of investing in cement in the Philippines, but this was never realised, and the company withdrew entirely from the Philippines. The failure of the investment contributed to prompting Norcem to focus more on its core area, building materials and cement, and Norcem's investments and management activities in the future remained within those areas. The plastic boat production in Norway was sold off. However, Norcem did enter the oil and gas industry in Norway. Norcem's manager, Heiberg, described the choice between focusing on the business's core areas, in which Norcem was one of the world leaders, or spreading the risk by diversifying to several other areas as being an "eternal dilemma".[951]

To sum up, Norcem's first FDI was to Ghana in 1967. It then took another nine years before the company once again invested abroad, although it was involved in management tasks overseas and exported internationally throughout this whole period. However, when Norcem once again explored FDIs in the late 1970s, it made several investments almost simultaneously. The sudden increase in FDIs is remarkable. In 1976, Norcem invested in the Philippines, while in 1977 it invested in both Ras al-Khaimah and Liberia. Most of Norcem's investments were within the areas of cement and building materials, in comparison to which the investment in the Philippines stands

[949] 1975 "Fjord's plast etablering på Filippinene et faktum", *Nytt i Norcem:* 2/3-75.
[950] 1977 "Fjord Philippines mer enn fordobler sin produksjon", *Nytt i Norcem*: 1-77.
[951] Interview with Heiberg, August 2015.

out as unique. A common feature across all of Norcem's FDIs in this period was that they were all in distant and often politically unstable countries. Another similar feature was that all the investments were joint ventures; not one of the investments abroad was wholly owned. Several of Norcem's investments can be considered successes, as they made a profit and continued for several years. The clear exception to this was the investment in the Philippines, from which Norcem withdrew just a few years after it invested.

## 6.6 Risk management

Norcem's FDIs in the 1960s and the 1970s were in distant countries in which few other Norwegian firms had invested. They were also in countries with unstable governments. Risk and risk management was therefore an important consideration. Coup d'état, bribery, and payment issues were amongst the risks that Norcem had to manage. This section will discuss which risks Norcem focused on in its FDIs, and how they chose to manage these risks.

The countries Norcem invested in were distant from Norway, both physically and culturally. Norcem's investment pattern thus does not follow the Uppsala Model, which argues that the first FDIs are usually to a physically or culturally close country.[952] Europe was excluded as a potential area for investment because investing there had the potential to increase competition on Norcem's home markets. From the early 1970s, Norcem had decided on a policy of focusing on investing, exporting, and selling know-how to foreign markets.[953] Thus, investing in more unknown markets was a necessity for Norcem if it was to achieve its aims for the future. Heiberg was hired as the managing director of Norcem with the purpose of internationalising the company; as an individual, he was willing to take risks if he thought the investment was an interesting prospect, and if he believed that Norcem would have an advantage

[952] Johanson, J. & Vahlne, J.-E. 1977. The internationalization process of the firm-a model of knowledge development and increasing foreign market commitments. *Journal of international business studies***,** 23-32.
[953] Heiberg & Odegard 1983.

over the competition in the country.[954] Heiberg's perception of risk likely had an impact on Norcem's investments. Research has shown that the risk perception of managers can affect the decisions taken by a firm, and how they choose to internationalise.[955] Norcem did not see risk and risk-taking as something that was purely negative, and thus its view on risk is in line with more recent definitions of risks.[956] However, it is interesting to note that, although Norcem saw itself as a risk-taker, there was a limit to how much risk it was willing to take. For instance, investment in cement factories in the USA was considered but ultimately decided against because the financial investment, and the risk, was seen as too large.[957] The other investments Norcem was involved with were risk-filled, but they were also smaller investments with less financial risk. March and Shapira found that, in most cases, even risk-prone managers avoided risks that could affect the survival of the firm.[958] This explains why Heiberg and Norcem, who otherwise were comfortable with taking risks, decided against investments that could potentially affect the survival of the firm. It also took Norcem 10 years from its first FDI to establish its second, although the company was internationally engaged throughout this period. This was likely related to its desire to remain financially secure. Thus, although Heiberg and Norcem itself saw the company as risk-taking, there were limits to how much risk they were in practice willing to accept. Risks were seen as both positive and negative, but only up to a certain point.

The countries Norcem chose to invest in had an impact on the risks involved with the investments. Norcem was more exposed to risks due to the industry it was involved in. Cement is an essential resource for any country, and Norcem had a monopoly of this product in many cases. Heiberg argued that the investments the company made were well researched and that Norcem was well prepared to manage the potential risks.[959] Norcem developed a reputation for delivering quality products; this reputation grew

[954] Interview with Heiberg, August 2015.
[955] Herrmann, P., & Datta, D. K. 2006, and Eduardsen, J. S. & Mariniva, S. T. 2016.
[956] Jaeger, C. C., Webler, T., Rosa, E. A. & Renn, O. 2013. *Risk, uncertainty and rational action*, Routledge.
[957] Interview with Heiberg, August 2015.
[958] March, J. G., & Shapira, Z. 1987. Managerial perspectives on risk and risk taking. *Management science*, 33(11), 1404-1418.
[959] Interview with Heiberg, August 2015.

internationally, which contributed to the company's increasing internationalisation, as its reputation created new opportunities to sell know-how or management abroad.[960] Norcem's manager in Ras al-Khaimah was tasked with improving Norcem's reputation.[961] The company's strong reputation in the country was one of the reasons Norcem was invited to establish a joint venture with Sheikh Saqr in 1977.

Political risks were one of the principal risks Norcem had to manage in all its foreign investments. This was particularly the case in Ghana and Liberia, but also for the investments in the Philippines and Ras al-Khaimah. Understanding the political environment was important for Norcem both before and during the investments.[962] Norcem focused on maintaining connections with the political leadership in the countries they were involved in.[963] Meeting and communicating with the leadership, the president, the prime minister, and/or the opposition of the country it was invested in was actively used as a risk-management strategy. This was seen as particularly important in the investment in the Philippines, where Norcem was the first Norwegian firm to enter the market. Heiberg also stated that on several occasions he travelled to the African countries where Norcem had investments in order to attempt to resolve political issues with the leadership of the country, when these arose.[964] This was not a simple risk-management strategy to implement, as it was often difficult to establish positive relationships with the leadership and there were risks involved with frequent changes in local leadership. It was important for Norcem to not be considered too close to the government in case of coups d'états, but still be close enough to be able to use relationships, trust, and networking as a risk-mitigation strategy.[965] More recently, Norcem's connection to non-democratic and corrupt leaders is something the company has been criticised for.[966]

[960] Interview with Heiberg, August 2015.
[961] 1976 "Norcem i Arabia", *Nytt i Norcem*: 4-76.
[962] Interview with Heiberg, August 2015.
[963] Vanvik, G. H. 2007. Grå Sement - Svarte Penger. *Dagens Næringsliv Magasinet*.
[964] Interview with Heiberg, August 2015.
[965] Ibid.
[966] Vanvik, G. H. 2007.

Financial and payment issues were another key risk for Norcem. Insurance from the GIEK was used to manage risk both for investments and in regard to export. The insurance was used to cover some of the expenses incurred in 1972 and 1973 when Ghana experienced a payment crisis.[967] Insurance is one of the oldest known risk-mitigation strategies.[968] Although Norcem used insurance from the GIEK in several of its investments, Heiberg did not highlight this as particularly important, instead emphasising the importance of support from the Norwegian government and being a Norwegian firm in general. The support from the government demonstrated that Norcem was not an independent company, but one with government backing, which made the firm appear stronger. The Norwegian government saw the investments Norcem was making as vital, considering them a form of development aid, which was an important political strategy in Norway, and because clinker was produced in Norway and could be exported.[969] This was likely one of the reasons Norcem portrayed the investments in Africa as social contributions that were beneficial for the host countries. It was also helpful for Norcem to contribute to the society they invested in because this was appreciated by local politicians. Regarding the second point, it was an advantage that Norcem was Norwegian because Norway had never had colonies, and was thus often perceived more favourably in the countries it invested in.[970] Being a Norwegian firm thus helped Norcem mitigate risks through support from the government, guarantees from the GIEK, and through a positive reputation. When asked about this, Heiberg stated, "During the entire development phase, I felt that being able to say 'I am Norwegian, and we bring with us all the positive that Norwegians stand for', that was an advantage".[971]

Norcem's investments in Africa were less focused on the actual FDI and more emphasis was placed on securing the export of clinker to the country. An article published in the company magazine about the acquisition of the mill in Liberia that was entitled 'Clinker deliveries secured by buying cement mills', further highlights the

[967] 1979. 25/10 1979. *Garantiinstiuttet for eksportkreditt: Styreprotokoller Aa-0024.*
[968] Knight, F. H. 2012. *Risk, uncertainty and profit,* Courier Corporation.
[969] Interview with Heiberg, August 2015.
[970] Ibid.
[971] Ibid.

emphasis on securing export of clinker.[972] This had an impact on how the risk involved in the investment was perceived. However, the FDI and the export of clinker to Ghana also gave rise to some financial risks for Norcem. Ghana had struggled with payment issues before Norcem's investment; the country was also very dependent on cocoa prices, as cocoa accounted for 60 per cent of its export income.[973] In 1972 when the clinker agreement in Ghana expired, Norcem was unsure how involved it wanted to be in Ghana going forward, in light of earlier financial issues.[974]

Joint ventures can be used as a risk-mitigation strategy, as risk is shared amongst participants. All of Norcem's investments studied in this thesis were joint ventures, and in several investments, the other participant was the local government. All of Norcem's investments in Africa were joint ventures with the local government, as was the FDI in Ras al-Khaimah. The investment in the Philippines was also a joint venture, but with a local business, rather than the state. According to Heiberg, this was not something Norcem had a clear policy on, but there was a focus on being flexible in response to the political situation in the country concerned. However, in regard to the investment in Saudi Arabia, a joint venture was seen as crucial in order for Norcem to be able to withstand the political situation.[975] Research shows that firms that invest in politically unstable countries are more likely to enter into joint ventures[976], which was the case for all of Norcem's investment. However, as Norcem did not have any FDIs in what could be considered stable political countries during the 1960s and 1970s, it is impossible to determine whether its preference for joint ventures would have been different in a more stable investment climate.

An essential requirement in Norcem's joint ventures was an understanding about, and with, the people it was investing with, and the selection of partners in joint ventures was seen as critical to the success of the investment.[977] Establishing a joint venture

[972] 1977 "Klinkereksport sikret ved kjøp av cement-mølle" *Nytt i Norcem:* 2-77.
[973] 1968-1976. Contacts with member countries: Ghana - Correspondence 01. Folder ID: 1771062. Reference Code: WB IBRD/IDA 03 EXC-10-4549S. *World Bank Group Archives.*
[974] 1973 "Bedriftreportasjen XII", *Nytt i Norcem*: 2-73.
[975] Interview with Heiberg, August 2015.
[976] Benito, G. R. & Gripsrud, G. 1992. The expansion of foreign direct investments: discrete rational location choices or a cultural learning process? *Journal of International Business Studies***,** 461-476.
[977] Heiberg & Odegard. 1983.

with the local government can help limit risks, but research has found that this is mainly the case when the government is the minority owner.[978] Including the local government as a joint owner helped Norcem mitigate specific risks, such as confiscation and nationalisation. Norcem was, for example, not affected by the decrees that set mandatory local ownership requirements in Ghana during the 1970s.[979] Norcem was also responsible for the management of the mill in Ghana, and had the decisive vote in the management of the mill, despite only owning 25 per cent of the company. This strategy of developing a positive relationship with the other participants in the joint venture, which in several cases was the local political leadership, was one of the most used risk-mitigation strategies by Norcem. However, this was also a complicated strategy. Heiberg argued that it was important not to be considered too close to the government in case of a coup d'état;

> *So it was a balancing act to keep a sensible relationship in a proper way and not be seen as part of the regime that was there at any time. Especially in Ghana this was a challenge, and also in Liberia.*[980]

In Norcem's application for guarantees from the GIEK to cover the investment in Ras al-Khaimah, it was also emphasised that the application must be kept confidential. Norcem saw it as crucial that the Sheikh in Ras al-Khaimah did not discover that Norcem had applied for guarantees against political risks,[981] as this could have complicated the relationship and trust that Norcem had spent years building between the company and the Sheikh.

Corruption and bribery was risks that Norcem had to manage in regard to its foreign investments. Corruption is here defined as bribes paid to government officials to gain 'favours'; some research shows that this can increase the cost of investing by up to 20 per cent. It can, however, also contribute to securing certain advantages, such as obtaining a monopoly on a market.[982] Corruption was a feature of Norcem's

[978] James, B. E. & Vaaler, P. M. 2013. Minority rules: State ownership and foreign direct investment risk mitigation strategy.
[979] 1975. Ghana - National Investment Bank Project. *World Bank Group Archives.*
[980] Interview with Heiberg, August 2015.
[981] 1976. Søknad om investeringsgaranti. *Garantiinstituttet for eksportkredit: Da L0021.*
[982] Barassi, M. R. & Zhou, Y. 2012. The effect of corruption on FDI: A parametric and non-parametric analysis. *European Journal of Political Economy,* 28, 302-312.

investments in Africa, where politicians and port authorities were open to bribes.[983] Bribery was also a feature of the cement deliveries to Cilco CC in the USA, where Norcem was required to transfer money to the 'Longshoremen's Association', a labour union for the East Coast of the USA, before ships could be unloaded.[984] Limiting time spent at the port was essential for the shipping industry, which granted the Longshoremen's Association power and the opportunity to request bribes.[985] Bribery was more commonly accepted in the 1970s and 1980s than it is today; it went from being an accepted to an unacceptable policy in a very short time span.[986] Thus, few questions were asked regarding this policy in Norcem at the time of the FDIs included in this research.[987] Until 1996, money spent on briberies abroad could be deducted from taxes paid in Norway; it was not until 2003 that a law against this kind of corruption was implemented in Norway.[988] In this regard, it is interesting that the firm that was employed to manage the mills in Ghana before Norcem's involvement was fired after being accused of being heavily involved with bribery of the former government.[989] As the policy of bribery continued during Norcem's involvement in the Ghanaian cement industry, it is likely that the issue with the previous managing firm was actually its closeness to Nkrumah, the president at the time. This provides further evidence of the importance of Norcem not being seen as being too closely connected to the leadership in Ghana in case of changes in leadership. Briberies also contributed to increased risk through increasing competition from other firms. Norcem was at a disadvantage against larger firms, since those firms were able to pay more extensive briberies than Norcem had the resources to offer. Heiberg illustrated the issue with an example: "Maybe we could have bribed a president in an African country, got involved and been there, but then, for example, a French supplier comes and promises gold and green forests".[990]

[983] Vanvik, G. H. 2007.
[984] Interview with Heiberg, August 2015.
[985] Marine, F. J. 2006. The effects of organized crime on legitimate businesses. *Journal of Financial Crime,* 13**,** 214-234.
[986] Joly, E. 2004. Kampen mot korrupsjon: fra utopi til virkelighet.
[987] Interview with Heiberg, August 2015.
[988] Vanvik, G. H. 2007.
[989] 1971. Att.: Rådgiver Hans H. Engebritsen: This Agreement. *Direktoratet for utviklingshjelp (Norad): Da – L0793.*
[990] Interview with Heiberg, August 2015.

Norcem used its relationship with the leadership in the countries it invested in as a risk-mitigation strategy against the risks arising from corruption. Research has found that corruption and bribery can create an advantage for foreign firms involved in FDIs in developing countries, as it can help Multinational Enterprises get around regulations and benefit from a monopoly or near monopoly on a particular market.[991] This was the case for Norcem in relation to cement in both Ghana and Liberia, where its use of bribery and relationship with the leadership likely contributed to this lucrative situation.[992] The increased competition on the cement market in Ghana around the same time as bribery became less acceptable further supports this analysis. It is therefore likely that the acceptability of policies of bribery in those two countries created risks but at the same time contributed to securing several advantages for Norcem. Thus, in regard to Norcem's investments in those countries, the profit obtained through the monopoly the company secured compensated for the high level of risk involved. Thus, it is clear that in these cases, investing in risk-filled countries can bring business benefits, as argued by Casson, M., & Da Silva Lopes.[993]

## 6.7 Summary and chapter conclusion

Norcem was created after the three cement producers in Norway in 1968 merged into one company. However, the first FDI made by the company's forerunners occurred the previous year, when two of the cement producers cooperated in an investment in a cement factory in Ghana. They won a bid to run and manage Ghancem, and held 25 per cent ownership. This investment was primarily aimed at securing income from the export of clinker rather than through the FDI itself, but risks were involved in the investment regardless. One of the main types of risk associated with investing in Ghana was political risk; this was particularly important because the subsidiary was a joint venture with the Ghanaian government. Ten years later, Norcem invested in a cement mill in Liberia. This investment had many similarities with the investment in Ghana; it was also a joint venture with the local government, and the risks associated with the

[991] Barassi, M. R. & Zhou, Y. 2012.
[992] Vanvik, G. H. 2007.
[993] Casson, M., & Da Silva Lopes, T. 2013. Foreign direct investment in high-risk environments: an historical perspective. *Business History*, *55*(3), 375-404.

two investments were similar. Between the two investments in Africa, Norcem was involved in Ras al-Khaimah, initially through the management of a cement factory and later through an FDI. Norcem also invested in a factory in the Philippines; the factory produced plastic boats, which were exported to Asia and Australia. However, the factory failed to meet expectations and was closed just a few years later.

Norcem has described itself as a 'risk-willing' firm. Political risks were one of the main types of risk faced by Norcem, due to the types of country in which it invested. All its investments were in geographically distant countries, and often those with relatively unstable governments. Several strategies were implemented to mitigate those risks, including insurance, developing and maintaining a good reputation, bribery, joint ownership with the local government or local businesses, and maintaining a close, but not too close, relationship with the country's leadership. Norcem also saw itself as a firm that was, to a certain degree, willing to take risks in the pursuit of opportunities. However, research was always carried out before the firm invested, and the leadership in Norcem felt it was well prepared for risks. The investments the company decided to go ahead with were also relatively small, from a financial perspective, so that a potential failure would not affect the rest of the firm. Risk was thus clearly an important consideration in Norcem's investments, but the company appears to have addressed the majority of risks when they occurred rather than developing a plan for how to manage potential risk in advance.

Norcem continued to focus on internationalisation and FDIs in the 1980s, mainly in cement-related industries. Several of Norcem's investments from the 1960s and 1970s survive today as a part of the Heidelberg Cement group.

# 7.0 Christiania Spigerverk / Elkem-Spigerverket

Christiania Spigerverk was a nail and steel producer based outside of Oslo. The company merged with Elkem, a Norwegian chemical company, in 1972 to become Elkem-Spigerverket A/S. Before the merger, Christiania Spigerverk had been planning and preparing an FDI in the United Kingdom, and the work toward this investment continued under the merged company. The aim of the FDI was to, "Construct and commission on a green field site in the United Kingdom, a scrap-based electric steelmaking plant having a capacity of 150,000 tons per annum – largely of reinforcing bar".[994] This type of plant is known as a mini steel mill, and produces steel from scrap metal. After months of planning and work, Elkem-Spigerverket A/S opened its first steel mill in England in August 1975. However, the 1970s were characterised by a crisis in the European steel industry, which hit the investment hard. Elkem-Spigerverket's FDI in the UK lasted until 1985, when Elkem decided to divest from the United Kingdom and withdraw from what had by then become a portfolio of investments in the country.

This chapter will examine Christiania Spigerverk and later Elkem-Spigerverket's (ES) investment in England, from the planning of the FDI until ES withdrew in 1985. The chapter will discuss the planning process, the investment decision, and the continued investment throughout the 1970s, as well as how ES viewed, planned for, and managed the risks involved in the investment. Christiania Spigerverk/Elkem-Spigerverket's investment in England is different from the other investments presented in this research, as its first foreign investment was to a country that was culturally close to Norway, and with which Norway had years of experience cooperating with. The inclusion of this company will therefore highlight the risks involved with FDIs in culturally close and politically stable countries, and in doing so will provide some contrasting perspectives on FDI and risk management in the 1970s. This company is compelling because it follows the investment from Christiania Spigerverk's initial plans, through a failed Industrial Development Certificate application, the continued

[994] 1972. McLellan and partner consulting engineers: Suggestions on the proposed United Kingdom project. *Elkems historiske arkiv: ELK 0001 M001.*

investment, the expansions in the following years, all the way through to the decision to withdraw from the steel industry entirely. Thus, this chapter presents the whole process of the company's involvement in steel in England.

As already explained, Christiania Spigerverk was the company that began the work towards this investment in England; this investment was to be its first FDI. Elkem, on the other hand, had more international experience and a minority share in an aluminium company in England. As the investment in the mini steel mill continued without much change and was managed by the same personnel as it was intended to prior to the merger, this investment is still considered to be a first FDI for the purposes of this research.

## 7.1 Background and merger

Christiania Spigerverk began as a small nail forger in Norway in 1853. Christiania is a reference to the former name of Norway's capital city, although the factory was located in Nydalen, a short distance outside of the city. The firm was named Christiania Spiger – og Valseverk until 1889. Valseverk means 'roller plant', and the first roller plant was built for the nail production, though production was later expanded into other steel products, such as spades, pitchforks, and railroad tracks.[995] Christiania Spigerverk commenced production of steel in 1917 and from this point on, the firm primarily became a steelworks, rather than a nail producer. The steel production was based on scrap metal. It was the steel production know-how that the company aimed to take abroad in the 1970s. Christiania Spigerverk was also involved in other steel- and metal-related industries in Norway, such as mining, alloy plants, shipbreaking, and lock production.[996]

[995] Schieldrop, E. 1961. *Christiania Spigerverk 1853-1961,* Oslo, Grøndahl & Søn boktrykkeri: 3.
[996] *Om spigerverket.* [Online]. Available: http://www.spigerverket.no/no/om_spigerverket/Historien+om+Christiania+Spigerverk.9UFRfUXb.ips [Accessed 12/01/2018].

Christiania Spigerverk (Spigerverket) primarily produced for the Scandinavian market, and it was foremost a home-oriented industry. Spigerverket established a subsidiary that produced nails in Sweden in 1898. Norway and Sweden were in a union at the time, and the investment was therefore not remarkable for an otherwise home-oriented company.[997] Christiania Spigerverk did have some export, and Spigerverket was exporting to 32 countries by 1969. Over 66 per cent of this export went to European Free Trade Association markets, with the United Kingdom as the biggest recipient.[998] Spigerverket produced approximately 150,000 tons of raw steel from scrap material in the 1970s; this steel was then processed into products including as railroads, nails, and wires. Spigerverket had a policy of integrating the production as far as possible; the firm wanted to retain as much control as possible over production, from the beginning of the process all the way to the finished products.[999]

Elkem was established in January 1904 under the name Det Norske Aktieselskap for Elektrokemisk Industri (the Norwegian Limited Company for the Electrochemical Industry), commonly known as Elektrokemisk.[1000] The name was changed to Elkem in 1969, which the firm retains today. Knut Tillberg, Marcus Wallenberg, Knut Wallenberg, and Sam Eyde founded the company. Eyde, the driver behind the creation of Elektrokemisk, was one of Norway's most important industry personalities in the early 1900s. He bought the rights to several waterfalls during a financial crisis in Norway in 1899, and later developed those waterfalls to produce electricity for Norwegian industries.[1001] Eyde was the founder of several Norwegian firms, but the best known are Elektrokemisk and Norsk Hydro.[1002] One of his other companies, A/S Haaøen Fabriker, was one of the companies that merged to become Norsk Sprængstofindustri (NSI), which later became a part of Dyno.

[997] Schieldrop, E. 1961: 143.
[998] 1970. Eksport. Christiania Spigerverk: Eksport.
[999] Schieldrop, E. 1961. *Christiania Spigerverk 1853-1961,* Oslo, Grøndahl & Søn boktrykkeri
[1000] Sogner, K. 2003. Skaperkraft: Elkem gjennom 100 år: 1904-2004, Messel forl.: 13.
[1001] Sogner, K. 2008. Constructive power: Elkem, 1904-2004. *In:* Fellman, S., Iversen, M. J., Sjögren, H. & Thue, L. (eds.) *Creating Nordic capitalism: The business history of a competitive periphery*: 497-498.
[1002] Eyde, S. 1956. *Mitt liv og mitt livsverk*, Oslo, S.

Elektrokemisk aimed to "acquire and develop waterfalls and start industries in the electrochemical area, as well as build and operate facilities that were related to this, such as power plants, factories, tracks, channels, roads, telephones etc.".[1003] Norsk Hydro, a fertiliser-producer that still exists today, was founded in 1905 based on technology first developed in Elektrokemisk. A significant technological innovation by Elektrokemisk was the 'Söderberg electrode system' for continuous, self-burning electrodes; this was invented in 1918 and sold on patent to the rest of the world.[1004] Elektrokemisk was also involved in other industrial areas, such as banking and forest-related industries. The company was connected in some way to 51 different Norwegian companies in 1919.[1005] Elektrokemisk, later Elkem, has, in general, been a very export-oriented firm, and approximately 80-90 per cent of its production historically has been exported.[1006] The company was involved with export to Russia from 1915.[1007] Elektrokemisk bought a Finnish company and its branch office in New York in 1917, but sold it back to the previous owner in 1920.[1008] In many ways, this was arguably Elkem's first FDI, but the Elkem that invested abroad at that time was a different company to the Elkem that invested abroad with Christiania Spigerverk in the 1970s. Elektrokemisk underwent major changes in the 1950s when it transited from a company that developed technology, to becoming a major producer itself.[1009]

Aluminium and ferroalloy production has been important for Elkem since the 1950s and 1960s. Elkem began producing aluminium in Mosjøen, Norway, in 1957, and cooperated with AIAG[1010] from Switzerland for the first few years, though the cooperating partner was changed to Aluminium Company of America (Alcoa) in 1964. Each of the two cooperating partners held 50 per cent of the shares in the aluminium company in Mosjøen. The British-based company Imperial Aluminium Company (Impalco) was one of the most significant purchasers of aluminium produced in

[1003] Eyde, S. 1956: 398.
[1004] Sogner, K. 2003: 58-66.
[1005] Ibid: 39.
[1006] Lundgaard, E. 1982. Foredrag i Värmländska Bergmannaförening, Internasjonalisering av Elkem. *Received from Lundgaard*.
[1007] Eyde, S. 1956.
[1008] Sogner, K. 2003.
[1009] Sogner, K. 2008: 494.
[1010] Aluminium Industrie Aktien Gesellschaft (AIAG) is today named Alusuisse.

Mosjøen. Together, Alcoa and the British company Imperial Chemical Industries (ICI) owned Impalco.[1011] When ICI withdrew from aluminium, and thereby Impalco, in 1967, Elkem was offered their 50 per cent shareholding. Elkem purchased 25 per cent, Alcoa bought the rest, and the name Impalco was changed to Alcoa of Great Britain.[1012] The United Kingdom was therefore an area known to Elkem long before its investment in the mini steel mill. However, Alcoa of Great Britain was, for the most part, organised and controlled by Alcoa, the majority owner.

Elkem grew into the biggest company in Norway, measured by stock value, between 1969 and 1970. In 2002, the Elkem Group had over 10,000 employees.[1013] The Norwegian company Orkla bought Elkem in 2006, and in 2011 Elkem was sold to the Chinese company National Bluestar. Elkem is today considered a Bluestar firm, and its work is concentrated on silicone production for use in solar energy.[1014] Elkem has retained its main office in Oslo.

In 1972, Christiania Spigerverk and Elkem merged to create Elkem-Spigerverket. The two companies had a long history of cooperation before the merger; in the 1920s and 1930s, the two companies cooperated on the development of iron melting utilising Norwegian natural resources and electricity.[1015] Together with the Norwegian government, the two companies developed the 'Tysen-hole' pig iron furnace, which used Elektrokemisk's Söderberg-technology to smelt iron ore.[1016] Spigerverket installed one of these furnaces in its factory in 1925. In 1929, the furnace was further developed into an efficiently working furnace based on electricity. Elektrokemisk was granted the rights to sell the licence on this new technology for the next 10 years. Spigerverket received 50 per cent of the profit, the Norwegian state received 30 per cent, and Elektrokemisk received the remaining 20 per cent. The agreement was

[1011] Andresen, E. & Frøland, H. O. 2008. Fra AIAG til Alcoa i Mosjøen. *In:* Henden, J., Frøland, H. O. & Karlsen, A. (eds.) *Globalisering gjennom et århundre: norsk aluminiumindustri 1908-2008.* Fagbokforlaget.
[1012] Sogner, K. 2003: 191.
[1013] Ibid: 9-10.
[1014] *Our history* [Online]. Available: https://www.elkem.com/about-elkem/our-history/ [Accessed 09/05/2015].
[1015] Schieldrop, E. 1961: 191-192.
[1016] Sogner, K. 2008: 514.

renewed in 1937 and lasted until 1955.[1017] The cooperation between the two companies continued during the 1950s, and they were the leading participants in Norenos, a company whose purpose was to sell Norwegian engineering services abroad.[1018] Both companies also participated in Noco (Norwegian Oil Consortium) in the 1960s. Noco aimed to gain a foothold in the oil and gas industry on the continental shelf.

The work towards merging Christiania Spigerverk and Elkem started in 1968, and the two companies eventually became Elkem-Spigerverket A/S (ES) in 1972. This made ES into one of the largest companies in Norway, with over 8,000 employees. The merger was an equal merger, where Christiania Spigerverk was placed under Elkem due to its waterfall concessions. The primary motivation for the merger was financial; as the merged company, ES would be able to take on much larger national and international contracts than either of the two companies could have done separately.[1019] In September 1980 'Spigerverket' was removed from the name and the company returned to being simply 'Elkem'. Christiania Spigerverk was sold off to Norsk Jernverk, a state-owned company, in 1985; as part of this sale, Elkem received 149.5 million NOK and 20 per cent of the shares in Norsk Jernverk.[1020]

### 7.1.1 Steel, the steel crisis and British steel production

There are primarily two ways to produce steel. It can be produced either from iron ore in a fully integrated steel plant, or from scrap metal. Steel that is produced from iron ore is typically produced in a fully integrated steel plant; this requires substantial investments, large factories, and an extensive transportation system. These plants are also energy-intensive. A fully integrated iron and steel factory usually aims for production of somewhere between four and eight million tons of steel annually.[1021] The state-owned plant in Norway, Jernverket, was a plant of this type, and so were most British steel plants. The second method of producing steel is from scrap metal and/or metallised iron ore. This is a much less resource-heavy process. These

[1017] Schieldrop, E. 1961: 193.
[1018] Ibid: 160.
[1019] Sogner, K. 2003: 196-197.
[1020] St. prp. nr. 74 (1984-1985). Om avtale Norsk Jernverk AS – Elkem a/s.
[1021] Sogner, K. 2003: 207.

production sites are typically called ‘mini steel works’ or ‘mini steel mills’. A mini steel mill is defined as a “semi-integrated unit producing from 50,000 to 250,000 net tons of raw steel annually”.[1022]

There are several benefits of the production of steel in a mini steel mill. In the 1970s, it was argued that the mini steel mill “[…] has emerged as an effective competition to the large integrated works under conditions when it can supply a localised market with a simple product range”.[1023] A mini steel mill typically consists of an electric arc furnace; this can be either with or without continuous casting, which converts molten steel into a semi-finished billet.[1024] The mill produces and rolls simple shape products, often for a local market. Transport of scrap metal can be expensive, and it is therefore an advantage for the steel producer to be located close to industrial centres.[1025] Local governments have typically prohibited export of scrap metal, and it is therefore hard to import in any significant quantity. This has also been the case in Norway, where export of scrap metal has been prohibited.[1026] It was a mini steel mill that Spigerverket owned in Nydalen in Norway;[1027] thus, the company had experience with this type of production, which is what it intended to take abroad when it invested in the United Kingdom in the 1970s.

The United Kingdom had historically been the biggest producer of steel in the world, but the USA took over this position by the beginning of the 1900s, while Germany became the second highest producer, after the USA. The European Steel and Coal Community was established in 1957, whereby all members had to agree to the free movement of steel. The United Kingdom became a member when it joined the European Economic Community (EEC) in 1973. In the years before and directly after the Second World War, global steel usage grew steadily; however, the consumption of steel in the developed world declined in the 1960s and 1970s. Production, on the other

[1022] 1970. Maurice & Pearce: The mini steel plant. *Elkems historiske arkiv: ELK 0001 M001*.
[1023] 1971. Mini Steel works. Working Report on the Prope study. *Ibid.*
[1024] 1971. Experience in mini-mill design and construction. *Ibid.*
[1025] 1970. Maurice & Pearce: The mini steel plant. *Ibid.*
[1026] NOU 1981:41. Stålutredningen: den norske stålindustris konkurransesituasjon. Oslo, Universitetsforlaget.
[1027] Sogner, K. 2003: 207.

hand, continued to increase, resulting in a steel crisis in Europe that began in 1974.[1028] The decreasing consumption of steel combined with increasing competition from other materials, growing oil and energy prices, and increasing steel production in newly industrialised countries, all contributed to the steel crisis.[1029]

The crisis had implications for the Norwegian market, where steel consumption decreased,[1030] but the UK was one of the countries most severely affected. The EEC developed a plan to address the continuing steel crisis in 1977; the plan was known as the 'Davignon Plan', and its objective was to regulate the EEC steel market so as to limit overproduction and unfair state support.[1031] The plan included a reduction in production capabilities, modernisation and rationalisation of the steel industry, and restrictions on future state support.[1032] The plan established a mandatory minimum price for steel, and a base price for imported steel. Any imported steel priced below the base price was subject to anti-dumping fees.[1033] Norway was affected by the Davignon Plan through its trade agreements with Europe but decided to implement fewer restrictions; Norway thus prioritised the interests of steel users over those of the steel producers.[1034]

The British steel industry has a history of shifting ownership structure. The industry was nationalised twice during the 1950s and 1960s, first in 1951, and then again in 1967. In 1967, the 14 largest steel producers in the UK established the British Steel Corporation (BSC), which represented approximately 90 per cent of the British steel-

[1028] NOU 1981:41. Stålutredningen: den norske stålindustris konkurransesituasjon. Oslo, Universitetsforlaget.
[1029] Sadler, D. 1984. Works closure at British Steel and the nature of the state. *Political Geography Quarterly,* 3**,** 297-311. And NOU 1981:41. *Stålutredningen: den norske stålindustris konkurransesituasjon.* Oslo, Universitetsforlaget.
[1030] NOU 1981:41. Stålutredningen: den norske stålindustris konkurransesituasjon. Oslo, Universitetsforlaget.
[1031] Morgan, K. 1983. Restructuring steel: the crises of labour and locality in Britain. *International Journal of Urban and Regional Research,* 7**,** 175-201.
[1032] Lundgaard, E. 1985. Foredrag i den polytekniske forening. Perspektiver for Vest-Europeas stålindustri. *Received from Lundgaard.*
[1033] 1978. NOTAT: EF's forslag til avtale med Norge om tiltak på stålsektoren. Forbruker og administrasjonsdepartementet. *Prisavdelingen: Db-L0204.*
[1034] 1978. EKSF's krisetiltak på stålsektoren. Forbruker- og administrasjonsdepartementet. Forbruker og administrasjonsdepartementet. *Prisavdelingen: Db-L0204.*

producing capacity.[1035] In the 1970s, BSC was a state-owned company, but privatisation was discussed yet again. State ownership gave the British government the power to appoint the chair and members of the board, as well as approve capital investments.[1036] The international steel industry crisis in 1974 hit the United Kingdom hard, leading to the worst recession for the British steel industry since the 1930s.[1037] The total number of employees in the steel industry in the United Kingdom decreased from 197,000 in 1974 to 82,500 in 1982.[1038] There are three main reasons that the steel crisis affected the United Kingdom so severely. The first was the oil crisis in 1973, which slowed economic activity and in turn decreased the demand for steel. Second, import of steel had taken over an increasingly larger share of the British market. This mainly affected the British Steel Corporation (BSC), which lost a proportion of its market to imported products. Finally, the increased import was not offset by increased export; the export rate grew much slower than the import rate. The British steel industry was also relatively inefficient, where the production of one ton of steel in the United Kingdom required several more working hours than it did in other European countries.[1039] In 1974 and 1975, BSC generated a modest profit, but was severely affected by the steel crisis after this.[1040] Mini steel mills and independent producers fared better than BSC and were more resilient throughout the steel crisis, but the period was challenging for these companies too.[1041]

## 7.2 Christiania Spigerverk's plans for a steel mill

Christiania Spigerverk began to discuss the possibility of building a mini steel mill in England in 1969. The decision to invest was taken prior to any discussion of a merger with Elkem, and was the first FDI that Spigerverket had planned. The aim was to have the mini steel mill operating by January 1975. The plans included the production of

[1035] Parker, D., & Wu, H. S. 1998. Privatization and performance: a study of the British Steel industry under public and private ownership. *Economic issues-stoke on trent-*, 3, 31-50.
[1036] Sadler, D. 1984.
[1037] Cockerill, A. 1980. Steel and the state in Great Britain. *Annals of Public and Cooperative Economics*, 51**,** 439-457.
[1038] Sogner, K. 2003: 254.
[1039] Cockerill, A. 1980
[1040] Sadler, D. 1984.
[1041] Cockerill, A. 1980

approximately 150,000 tons of reinforcement steel of two different qualities. The steel produced would at that time have had an annual sales value of 140 million NOK, or £8.35 million.[1042] The investment was expected to cost 160 million NOK, so from a financial perspective this was a much larger investment than those made by the other firms studied in this research.

The relationship between Norway and the UK has traditionally been a close one, and the UK has been one of Norway's primary trading partners. In 1932, after the UK abolished its free trade policy, the Norwegian government began working on a trade agreement between the two countries. Norway and the UK signed the agreement in 1933, which included reductions in specific import duties, including some steel products.[1043] An updated trade agreement was signed in 1950,[1044] and a convention to avoid double taxation and to prevent fiscal evasion between the two countries was signed in 1951.[1045] Both Norway and the United Kingdom became members of the European Free Trade Association (EFTA) when this was established in 1960. This organisation worked toward decreasing customs between the participating countries and steel-products was included in the EFTA agreement.[1046] When Norway opposed the building of state subsided aluminium smelters in the UK, it was the EFTA rules they relied on to support their argument against the British aluminium smelters planned production capacity. The building of the smelters, and the Norwegian complaints against them, occurred in the late 1960s and early 1970s, thus around the same time as Christiania Spigerverk were working towards their investment in the UK.[1047]

Christiania Spigerverk had previous experience of the British market, which was one motivation to invest in this country. From 1969, Spigerverket had owned a cut and

[1042] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Elkems historiske arkiv: ELK 0001 M001.*
[1043] St.prp.nr. 74. (1933). Om handelsoverenkomst med det Forente Kongeriket Storbritannia og Nord-Irland m.v.
[1044] St.prp. nr 23 (1951). Om ratifikasjonen av handelstraktat mellom Norge og Det Forente Kongeriket Storbritannia og Nord-Irland til unngåelse av dobbelbeskatning m.m
[1045] Innst. St. nr. 216 (1951). Om samtykke til ratifikasjon av en overenskomst mellom Norge og det forente kongeriket Storbritannia og Nord-Irland til unngåelse av dobbelbeskatning m.m
[1046] St. meld. nr. 33 (1966-67) Om Samarbeidet i Det Europeiske Frihandelsforbundet (EFTA).
[1047] MacKenzie, N. 2012. Be careful what you wish for: Comparative advantage and the Wilson Smelters Project, 1967-1982. *In:* Frøland & Ingulstad (eds.) *From Warfare to Welfare.* 163-198.

bend plant for reinforcement steel in England; the company was known as Kings Lynn Steel Company Ltd. The steel was produced at Spigerverket's factory in Norway and shipped to England; Kings Lynn then prepared and sold it based on the needs of local businesses. Karl Ismar and Erik Lundgaard, two of Christiania Spigerverk's directors of Kings Lynn, argued that it was important to be able to sell steel in specific lengths and shapes, as this product could be sold straight to the businesses.[1048] Initially, Christiania Spigerverk shared ownership of Kings Lynn with Endecom (EDC), a steel supplier, but they later acquired 100 per cent ownership. This subsidiary was, for the most part, profitable, except during the steel crisis when contracts were lost to firms that were able to offer steel at a cheaper price.[1049] Nevertheless, the subsidiary survived the steel crisis and continued to exist as a part of Christiania Spigerverk for roughly 15 years after the rest of the company's involvement in the UK was sold.[1050]

### 7.2.1 Investment decision

Spigerverket created a list of several reasons it saw the investment in a mini steel mill in the UK as interesting, and for why it decided to follow through with the work.[1051] The list included wide-ranging factors, from the company's existing knowledge about the British steel market to more country-specific issues.

The main reasons given by Spigerverket were listed as follows:

1. Through the establishment of our English daughter company, Kings Lynn Steel Co., we have created a market for reinforcement steel in England, and gained knowledge about this industry.
2. In our steel division, we have the technical know-how and expertise in regard to producing reinforcement steel, which is at least on the same level as other steel producers.
3. England is traditionally an importer of reinforcement steel.

[1048] Interview with Lundgaard and Ismar, August 2015.
[1049] 1975. Kings Lynn – Telefonsamtale Leon 6.Februar 1975. *Christiania Spigerverk: Kings Lynn 1975 Første halvår*.
[1050] Lundgaard. Interview with Lundgaard and Ismar August 2015.
[1051] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Elkems historiske arkiv: ELK 0001 M001*.

4. Because of alternating nationalisation and de-nationalisation of the English steel industry throughout the last 25 years, there has been a very low degree of renewal. This should make it easier for us to establish ourselves in a satisfactory way. BSC is in part unpopular as a supplier among the consumers.
5. As a result of the political-economic climate in Norway in recent years, the industrial companies have been placed under a steadily increasing economic burden. It is likely that this trend will continue, and it can therefore be of economic importance for our group to establish production activities in other countries that are behind us in this development.
6. Christiania Spigerverk has gained a dominating market share for most of its products on the Norwegian market and any expansion of importance will therefore have to be based on either new products or in new markets, with old products.
7. With a steel works in Oslo and one in England that both produce reinforcement steel, the production and markets can be coordinated.
8. England has a surplus of labour, cheap scrap metal, and an important market, which is a necessary foundation for a mini smelter's success. If both Norway and England join the common market, the conditions are the same as in today's EFTA (European Free Trade Association). If only England joins the EEC (European Economic Community), a steel plant in England can be of immense importance for future expansion.[1052]

A major category of arguments given for why the company wanted to invest in an FDI in England was related to Spigerverket's belief that this investment had a high potential for profit-making. Before 1971, somewhere between 20 and 40 per cent of the steel used in the UK had been imported from Europe, and the steel market was expected to increase in the future. In 1970, the whole of the United Kingdom and Ireland used approximately 940,000 tons of reinforcement steel; this was expected to increase to 1,875,000 tons by 1987, indicating that the market was expected to almost double in

[1052] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Elkems historiske arkiv: ELK 0001 M001.*

just 17 years.[1053] This would mean that a mini steel mill in the UK would have a potentially strong market position. Had this forecast come true, Spigerverket would most likely have made a significant profit from the investment. Although the market was expected to increase, the *Working Report on the Probe Study* from 1971 also discussed the potential risk of over-capacity in the market; in particular, the study highlighted the issue of increased steel production in the UK. However, the study did not emphasise this as a large potential risk; instead, it argued that if this over-capacity did occur, the mini mill would be in a strong position relative to the larger integrated plants. The report thus argued that a mini steel mill would be an attractive investment with careful planning.[1054] There is no evidence that the potential for overproduction and the possible implications of this were further researched. The predicted demand for steel, according to the probe study report, is presented in Table 10 below.

**Table 10:** Predicted annual demand for reinforcement steel (in thousand tons)[1055]

| Year | Britain | All Ireland | Total |
|---|---|---|---|
| **1970 (Actual)** | 900 | 40 | 940 |
| **1977** | 1,185 | 65 | 1,250 |
| **1982** | 1,440 | 90 | 1,530 |
| **1987** | 1,750 | 125 | 1,875 |

Another argument for the mini steel mill investment in the UK was related to Spigerverket's view of the local competition. Spigerverket argued that the competition in the United Kingdom was not strong. British Steel Corporation (BSC) did not, at the time, appear interested in producing reinforcement steel of the same type as Spigerverket was intending to produce, and reinforcement steel was largely imported to the UK. Thus, Spigerverket would be selling a product that did not directly compete with the state-owned company, and a product that there was a need for in the UK.[1056]

[1053] 1971. Mini Steel works. Working Report on the Prope study. *Elkems historiske arkiv: ELK 0001 M001*.
[1054] Ibid.
[1055] Ibid.
[1056] Lundgaard, E. 1982. Foredrag i Värmländska Bergmannaförening, Internasjonalisering av Elkem. *Received from Lundgaard.*

Spigerverket's relationship with BSC was also good, and Lundgaard felt they were welcomed by BSC.[1057] Furthermore, there was only one other mini steel mill in the UK at the time, Sheerness Steel Co. This meant that the competition between independent producers was not strong at the time the investment decision was taken.[1058] Sheerness Steel opened in 1972 and had an output capacity of 180,000 tons per year. It was situated in the Isle of Sheppey and had London as its main market for buying scrap metal.[1059] Spigerverket also judged that it had amongst the best know-how on mini smelters in Europe,[1060] and thus saw itself as a strong competitor on the British steel market.

A third reason given by Christiania Spigerverk for investing abroad was the limited size of the Norwegian market. Hamilton and Webster argue that companies in small open economies face greater pressure to internationalise, and the size of the domestic market is given as one of the reasons for this.[1061] Spigerverket experienced an expansion period in Norway after 1960, where it got involved in several different sectors in almost all the Norwegian counties. By the 1970s, the company considered there to be a lack of opportunities for continuing expansion within steel on the Norwegian market.[1062] The only other steel producer in Norway was Norsk Jernverk, a state-owned company that benefited from financial and political support from the government.[1063] Because of this, it was almost impossible for Spigerverket to increase its share of the Norwegian market. The only options were therefore to either invest in new products or invest abroad.[1064] Spigerverket also had a mini steel mill in Norway in the years prior to its investment in England; it thus considered mini steel mill production to be an area in which it was capable of successfully investing abroad, as it had the required knowledge and technical skills. Lundgaard, who had been a

[1057] Lundgaard. Interview with Lundgaard and Ismar, August 2015.
[1058] Lundgaard, E. 1982. Foredrag i Värmländska Bergmannaförening, Internasjonalisering av Elkem. *Received from Lundgaard.*
[1059] 1971. Way un-barred for Norway. *Steel Times*.
[1060] Lundgaard, E. 1982. Foredrag i Värmländska Bergmannaförening, Internasjonalisering av Elkem. *Received from Lundgaard.*
[1061] Hamilton, L. & Webster, P. 2015. *The international business environment*, Oxford University Press, USA
[1062] Lundgaard: Interview with Lundgaard and Ismar, August 2015
[1063] St. prp. nr. 74 (1984-1985). Om avtale Norsk Jernverk AS – Elkem a/s.
[1064] Ismar. Interview with Lundgaard and Ismar August 2015.

manager for Spigerverket's steel division, described Spigerverket's own mini mill in Norway as "perhaps one of the most effective plants there has been of the mini plant type".[1065]

Due to Spigerverket's familiarity with the British market through the establishment of Kings Lynn, the UK was selected as the most appropriate country to invest in. Both Ismar and Lundgaard, who had been heavily involved in Spigerverket's investment in the UK, remarked on how important the knowledge the company had obtained about this market through the subsidiary was for the later investment.[1066] The East Coast of the USA was also discussed as an option, but Spigerverket decided that the USA was too geographically distant, and that the market was too unfamiliar to invest there.[1067] If the company had invested on the East Coast of the USA, Spigerverket would have been one of the first mini steel mills in the area.[1068] The USA was also not as severely hit by the steel crisis as the UK, and the investment would potentially have been more successful than the one that transpired in the UK. However, it was also argued that due to the factory's location in the UK and thus within the EEC market, the investment could be a stepping stone for further investments in the EEC.[1069] In summary, the selection of the UK as the location of the investment was taken because Spigerverket knew the market and saw it as the less risky option.

Sheepbridge, near Chesterfield in the East Midlands in England, was selected by Spigerverket as the desired area for the building of the mill. According to Spigerverket's Industrial Certificate application, the Midlands was intended to be Spigerverket's main market for the steel produced at the mill.[1070] The Chesterfield area was at the centre of demand for reinforcement steel. Having a mini steel mill close to the market was important due to the costs of transporting both the scrap metal and the

[1065] Lundgaard. Interview with Lundgaard and Ismar, August 2015.
[1066] Interview with Lundgaard and Ismar, August 2015.
[1067] Lundgaard: Interview with Lundgaard and Ismar, August 2015
[1068] Lundgaard, E. 1982. Foredrag i Värmländska Bergmannaförening, Internasjonalisering av Elkem. *Received from Lundgaard*
[1069] 1973. Intern Rapport. Elkems historiske arkiv: ELK0001 M001.
[1070] Lundgaard, E. 1982. Foredrag i Värmländska Bergmannaförening, Internasjonalisering av Elkem. *Received from Lundgaard.*

final product.[1071] In addition to being in a central location, Chesterfield was also considered the most suitable area to build the factory due to the high unemployment rate amongst skilled workers in the area.[1072] In 1971, the board of Christiania Spigerverk voted to progress with the planned FDI in Chesterfield.[1073]

*7.2.1.1 Entry mode and ownership*

The mini steel mill was a green field investment, and Christiania Spigerverk decided early on that majority ownership (minimum 50 per cent) was preferable. This was the main reason why an offer of a joint venture with a Canadian Steel company was declined; Spigerverket did not want to be the minority owner, which is what was offered in the joint venture proposition.[1074] The investment ended up as a wholly owned investment, but other potential ownership options were discussed in the earlier stages of the investment planning. In 1971, Spigerverket was looking into offering ownership to three other participants, as can be seen from the table below.

**Table 11:** Plans for ownership in 1971[1075]

| Who | Percent share |
|---|---|
| Christiania Spigerverk | 50 |
| EDC (Partners in Kings Lynn Steel ltd.) | 10 |
| Contractors-Consortium | 30 |
| British Steel Corporation | 10 |

Kings Lynn Steel Company Ltd was the English-based sales company owned by Spigerverket and Endecom (EDC) together. EDC, a steel producer and supplier, was to be offered 10 per cent ownership in the new mini steel mill in England. The Contractors-Consortium, which would have 30 per cent ownership, consisted of 12 big contractors who had previously planned to build a reinforcement steel-producing company. The Contractors-Consortium preferred to join Christiania Spigerverk

[1071] NOU 1981:41. Stålutredningen: den norske stålindustris konkurransesituasjon. Oslo, Universitetsforlaget.
[1072]1971. The IDC application by Christiania Spigerverk. PREM 15/618, *UK National Archives, Kew.*
[1073] Lundgaard, E. 1982. Foredrag i Värmländska Bergmannaförening, Internasjonalisering av Elkem. *Received from Lundgaard.*
[1074] Interview with Lundgaard and Ismar, August 2015
[1075] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Elkems historiske arkiv: ELK 0001 M001.*

instead of building their own reinforcement steel mill because they considered two mini mills to be one too many. Included in the Contractors-Consortium was also Kings Lynn's biggest customer, Tylor Woodrow Contractor, who would be offered 3 - 5 per cent of the shares. Several of the proposed participants in the mill were consumers of steel, and Christiania Spigerverk argued that, "With said participation, we have already secured an allocation of approximately 100,000 tons of reinforcement steel. If we include the cutting and bending company, this figure could increase to 120,000 tons".[1076]

Christiania Spigerverk, who had been in contact with the British Steel Corporation (BSC) and offered them a shareholding, saw the BSC as a desirable partner. Spigerverket's rationalisation behind a joint venture with BSC was that, "having them as partner may help us when dealing with central and local authorities, strengthen the solidity of the project when raising capital, they own the site we have chosen in Chesterfield, etc.".[1077] The BSC was at this time a nationalised company; a joint venture with BSC as the minority partner would therefore help when dealing with the government in the UK. A partnership with BSC was also considered convenient because the company already owned the site in Chesterfield that Spigerverket had selected as the most preferable location.[1078] The offer of joint ownership with BSC might have had the drawback of diminishing Christiania Spigerverk's likelihood of being granted an Industrial Development Certificate (IDC). Although a potential joint ownership with BSC was not mentioned in the IDC application, the British government was still aware of this option as it is mentioned in the British government discussion on Spigerverket's IDC application. The British government argued that this would give other competing private firms a reason to complain about the IDC decision, as Christiania Spigerverk would be in a joint venture with a nationalised steel company.[1079]

[1076] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Elkems historiske arkiv: ELK 0001 M001*
[1077] Ibid.
[1078] Ibid.
[1079] 1971. The IDC application by Christiania Spigerverk. *PREM 15/618, UK National Archives, Kew.*

Although it was seen as advantageous to have BSC as a partner, Spigerverket was sceptical that BSC would want to participate in the joint venture. This was primarily because Spigerverket's plans for the mini steel mill would essentially mean that they would take a portion of BSC's market share. BSC was also, in general, not particularly interested in production of the type of reinforcement steel that Spigerverket was primarily intending to produce. Thus, in the case that BSC chose not to participate, the shares were to be offered to one of the other companies, which, according to Spigerverket, had indicated their interest.[1080] The group of interested partners consisted of several other companies, but scrap metal companies were eliminated as potential partners because including scrap metal providers would tie Spigerverket to only one or two providers, which it did not want, as it would mean Spigerverket had less flexibility. Thus, this was seen as a last resort option that would be used if it was not possible to find other partners.[1081]

In 1972, BSC was changed to "Other Interests" in the proposed plans for ownership, as shown in the revised table below.[1082]

**Table 12:** Plans for ownership in 1972 [1083]

| Who | Percent share |
|---|---|
| Christiania Spigerverk | 50 |
| EDC (Partners in Kings Lynn Steel ltd.) | 10 |
| Contractors-Consortium | 30 |
| Other Interests | 10 |

The inclusion of EDC and Contractors-Consortium would have secured for Spigerverket the sale of 80 per cent of the steel production from the mini steel mill.[1084]

[1080] 1971. Innstilling til styret i Christiania. *Elkems historiske arkiv: ELK 0001 M001.*
[1081] Ibid.
[1082] 1972. Foreløbig innstilling. Stål- og valseverk for armeringsstål i Storbritannia. *Elkems historiske arkiv: ELK 0001 M001*
[1083] Ibid.
[1084] 1972. Foreløbig innstilling. Stål- og valseverk for armeringsstål i Storbritannia. *Elkems historiske arkiv: ELK 0001 M001*

However, the participation of the Contractors-Consortium in the mill was not realised, and Elkem-Spigerverket was the sole owner of the mini steel mill.[1085]

### 7.2.2 Industrial Development Certificate

Christiania Spigerverk did not start building the planned mini steel mill before the merger with Elkem. The main reason for this was that the British Minister of State for Industry, Sir John Eden, refused to grant an Industrial Development Certificate (IDC) to Christiania Spigerverk in December 1971. An IDC was a prerequisite for opening an industrial plant in the UK. The consequences of this refusal were therefore that Spigerverket could not go through with its original plans for a mini steel mill in Chesterfield. The reason stated by Sir Eden for the denial was that the proposed site at Sheepbridge near Chesterfield was not in a defined "development area".[1086] Spigerverket had tried to, in its application, show that a location in a development area was unsuitable for a mini steel mill. The British government had discussed the issue, and opinion had been divided. It had considered granting Spigerverket the IDC because this would have been well received in both Chesterfield and in the county of Derbyshire as a whole, and because it could have been considered just, due to the high unemployment rate in the region.[1087] A mini steel mill would have made a significant contribution to local industrial growth through its use of a local workforce, local power, and local infrastructure.[1088] It would therefore have been beneficial for a region with high unemployment. However, Sir Eden and the government also felt that the decision to grant the IDC would be attacked by Spigerverket's competitors, and by the areas that had been defined as development areas. It was argued that granting Christiania Spigerverk the IDC would lead to accusations of the government ignoring its own regional policy. It would also potentially lead to accusations of giving advantages to a foreign company that already had a "[…] criticised pricing policy".[1089] The British government further argued, and hoped, that if the IDC was not granted for

[1085] 1973. Dear Mr. Lundgaard. 6. July 1973. *Ibid.*
[1086] 1972. The following article appears in to-day's financial times. *Ibid.*
[1087] 1971. The IDC application by Christiania Spigerverk. *PREM 15/618, UK National Archives, Kew.*
[1088] 1970. Maurice & Pearce: The mini steel plant. *Elkems historiske arkiv: ELK 0001 M001.*
[1089] 1971. The IDC application by Christiania Spigerverk. *PREM 15/618, UK National Archives, Kew.*

an investment in Chesterfield, Christiania Spigerverk would invest in a development area instead.[1090] Spigerverket was not able to convince Sir Eden that it was unreasonable to build the mini smelter in any other location, and the Industrial Development Certificate for the project was denied.

The issue was raised again a year later, this time by the trade unionists in Chesterfield. As expected, due to the area's high unemployment rate, which was over seven per cent, the trade unionists wanted Christiania Spigerverk's mini steel mill in Chesterfield. However, by that time, Spigerverket and Elkem had merged and the company was in the process of developing new plans for the mill elsewhere.

## 7.3 Continued investment under Elkem-Spigerverket

Elkem-Spigerverket A/S (ES) continued the work towards the mini steel mill investment, but this time aimed for a new area in the United Kingdom. Although the two companies had merged, this investment was still foremost an investment by the same personnel that had developed the original plans for the steel mill in Chesterfield.[1091] It can thus still be considered an investment by Christiania Spigerverk, and the merger had no significant consequences for the investment. However, the merger did bring about some minor changes. Elkem-Spigerverket was a much larger and financially stronger firm than Spigerverket had been independently. The original plans for a joint venture were never followed up on after the merger, and the time frame for planning and building was also shortened. This meant that the steel mill would be operating just a few months after originally planned, even with the delays resulting from the refusal of the Industrial Development Certificate.

The main reason ES decided to continue with the investment even though it had failed to obtain the Industrial Development Certificate, was the research that had been carried out and the resources Spigerverk had invested in the project. Furthermore, ES argued that it had the necessary experience from building and operating similar plants

[1090] 1971. The IDC application by Christiania Spigerverk. *PREM 15/618, UK National Archives, Kew.*
[1091] Ismar, Interview with Lundgaard and Ismar, August 2015

elsewhere.[1092] Thus, the merger had brought more international experience into the investment and ES decided to continue with the plans for a mini steel mill in the UK.

One of the issues ES spent the most time and resources debating was where to invest. Sheepbridge, near Chesterfield, was no longer an option after Christiania Spigerverk had been denied the Industrial Development Certificate in 1971. ES therefore had to decide on a new site for the mini steel mill. At least 50 different potential sites were inspected,[1093] and two stood out as the most favourable: Pontypool in South Wales, and Manchester in England. The debate between the two locations went back and forth, and Pontypool was still considered the most favourable option as late as October 1972,[1094] however, finally, ES selected Manchester for the FDI.

The main advantage that would have been offered by Pontypool was a development grant that ES would have received for building in this area. This also meant that ES would be granted the Industrial Development Certificate in Pontypool, as it was considered a development area.[1095] Pontypool also had cheaper cooling water than Manchester, but this would, in general, be an insignificant expense, and the more significant expenses, such as electricity and scrap metal, would be cheaper in Manchester. The development grant was considered to be significant, and ES spent both time and resources researching Pontypool and the area where the plant could have been built.[1096]

However, Manchester as the site for the mill also offered several important advantages. First, Manchester had better market conditions than Pontypool. The price for scrap metal was lower and the price for the finished product was higher, which would potentially generate a higher surplus. Furthermore, approximately 30% of the

[1092] 1972. Foreløbig innstilling. Stål- og valseverk for armeringsstål i Storbritannia. *Elkems historiske arkiv: ELK 0001 M001*.
[1093] 1972. Notat etter møte i Middelthunsgt. 27 den 14/11.72. *Elkems historiske arkiv: ELK 0001 M005.*
[1094] 1972. Foreløbig innstilling. Stål- og valseverk for armeringsstål i Storbritannia. *Elkems historiske arkiv: ELK 0001 M001*.
[1095] Ibid.
[1096] 1972. Rapport fra tomtebefaring, Pontypool, samt møter med representanter for myndighetene 12. og 13. desember 1972. *Elkems historiske arkiv: ELK 0001 M002*.

population of the UK lived within a 60-mile radius; this increased the potential market and decreased transportation costs. The plant would also be located closer to its competitors, which meant it would be easier to organise possible collaborations. For instance, the company Johnson and Firth Brown (Ltd) owned the site in Manchester; this company ran a wire rod production and ES believed that acquiring the site from them could lead to collaborations between the two producers. To collaborate with an already existing firm, ES argued, would potentially provide access to important knowledge about local conditions and key local contacts. In addition, the potential site in Manchester had railroad tracks and road connections, which would make it easier to transport both the scrap metal and the finished products. The electricity agreement was also cheaper than the one that was worked out in South Wales.[1097] Johnson and Firth Brown Ltd. had originally intended the site in Manchester to be used for a steelwork project, but had abandoned these plans to invest in another project closer to London. It had, however, already started the planning process for the site in Manchester, which left ES with what it described as a "remarkable opportunity".[1098]

The main disadvantage of Manchester was that the Regional Development Grant would be lost. This grant was worth 20 per cent of the costs of equipment, machinery and facilities, which meant building the factory in Manchester would be more expensive. The selection of Manchester also meant that several political and sociological factors had to be considered in regard to the investment. The location was described as being in the "[…] centre of a spider web of external factors".[1099] However, Manchester was also an area with high unemployment, which both the local and national government were seeking to reduce.[1100] A new factory in this area would therefore be favourably looked upon by the government.

[1097] 1973. Stålverksprosjekt / England. *Elkems historiske arkiv: ELK 001 M001*.
[1098] Walker, H. 1974. Another mini plant. Manchester Steel. *Steel Times*.
[1099] Sundt, H. 1975. Hvordan er vi blitt motatt, og hvor langt er vi kommet idag. *Receieved from Lundgaard.*
[1100] 1973. Steel Mill (Manchester) HC Deb 02 April 1973 vol 854 cc12-4.

### 7.3.1 Manchester Steel Ltd.

After long discussions, ES decided on Manchester as the location for its investment and a new application for the Industry Development Certificate (IDC) was submitted. ES was granted the IDC for Manchester in 1973. The building of the plant began immediately afterwards, and the aim was to commence production in the first half of 1975. In November 1973, a subsidiary of ES with the name 'Manchester Steel Ltd.' was created with share capital of £1 million. This was higher than ES had been advised, but ES argued that that the scope of the plans justified having such large share capital in the subsidiary.[1101]

The owner of the selected site, Johnson and Firth Brown Ltd, already had plans for building a similar steel plant to the one ES was about to build, and the two companies entered into an agreement where ES implemented the existing plans for the building.[1102] ES also entered into several of the contracts Johnson and Firth Brown had created in the initial plans for the site.[1103]

The mini smelter aimed to produce approximately 100,000 tons of steel each year. This was to be produced in one steel furnace and one continuous casting plant. The cost of the first stage of building was set at £4 million. The second phase would cost £6 million, and ES planned to complete this at a later stage as the first phase was sufficient to commence production. The mini mill was expected to employ somewhere between 250 and 300 workers.[1104] ES built the factory during a period of high economic growth, which meant that the building costs increased by 2.5 per cent per month.[1105] With the combination of plant size and location, and a rate of return of 10% (DCF Yield), the selling price of the steel produced at the Manchester Steel mill would be lower than the corresponding BSC price, of £64 per ton. The main raw material that the mini mill would use was scrap metal, which could be either iron or steel, and either circulated

[1101] 1973. Manchester steel City Ltd. *Elkems historiske arkiv: ELK 0001 M002.*
[1102] 1973. For the attention of Messrs. David Botterill and Duncan Wynnard. *Elkems historiske arkiv: ELK 0001 M004.*
[1103] Walker, H. 1974. Another mini plant. Manchester Steel. *Steel Times.*
[1104] 1973. Elkem-spigerverket bygger stålverk i England. *Elkems historiske arkiv: ELK 0001 M001.*
[1105] Lundgaard, E. 1982. Foredrag i Värmländska Bergmannaförening, Internasjonalisering av Elkem. *Received from Erik Lundgaard.*

scrap, process scrap, or capital scrap.[1106] In the UK, the iron and steel scrap prices were regulated by the British Scrap Federation, which had a pricing agreement with BSC and the British Independent Steel Producers Association (BISPA).

The UK's entry into the European Economic Community (EEC), and thereby also the European Coal and Steel Community, was expected to have an impact on the British steel industry and thus on the investment. The entry into the EEC removed the protection previously offered to the British steel and scrap metal market. This meant that competition would increase, as the UK market had previously been protected by an eight per cent tariff on steel, both ways. The probe study predicted that the EEC membership of the UK would likely mean a squeezing of the average margin between income and raw metal cost. The average price for scrap metal was expected to rise to £2/ton, with no corresponding rise in product prices. However, this was judged to "Not have a very serious effect on the attractiveness of the investment […]".[1107] Another consequence of Britain's membership of the EEC was that, in the short run, reinforcement steel prices were expected to fluctuate more than they had done previously. The positive impacts were that the available market for steel produced in the UK would increase; transports cost would therefore be an important factor in the success of the mill.[1108] The UK's decision to join the EEC and Norway's decision against membership made the distance between the mill in England and the mill in Norway more significant.[1109] However, having steel production in the EEC was seen as a potential benefit, as it provided access to the common market and could be beneficial in the case of later investments in Europe.[1110]

#### *7.3.1.1 Construction of the mini steel mill*

In September 1973, ES was granted the IDC for the building of the steel mill in Manchester. The IDC was granted after "careful consideration" and the industrial

[1106] 1971. Mini Steel works. Working Report on the Prope study. *Elkems historiske arkiv: ELK 0001 M001*.
[1107] Ibid.
[1108] Ibid.
[1109] Interview with Lundgaard and Ismar, August 2015
[1110] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Elkems historiske arkiv: ELK 0001 M001*.

minister apologised for the time it had taken to reach a decision. According to the industrial minister, there had again been arguments both for and against granting ES' second IDC application.[1111] Thus, the application process had not been straightforward, and it is likely that many of the same arguments raised in regard to the first application were brought up again. Nevertheless, ES's application was successful and the project could move forward. ES aimed to commence production during the first half of 1975; on 15 August 1975, Elkem-Spigerverket's mini steel mill had its first test run. After some small technical adjustments, the mini smelter began full production later the same year. The total funds invested reached approximately £5.6 million, and there were plans to expand the mill in the future.[1112]

One area of risk that Elkem-Spigerverket expected to encounter in regard to the mill was related to workers' rights, strikes, and unions. This was something the UK was known for at the time, and it was thus a country-specific risk. However, this issue was addressed long before the mill opened, and ES tried to work out agreements where they had to deal with as few unions as possible.[1113] The Iron and Steel Confederation (ISTC) became the primary union at the steel mill, while two other minor unions were also included; ES wanted to avoid having to negotiate with several different unions.[1114] The Norwegian industrial democracy was also replicated at Manchester Steel; there was, for example, continuous dialogue between management, workers, and officials, and all personnel would eat in the same canteen.[1115] This was something that had been important at Spigerverket's steel mill in Norway, and something that the company wanted to replicate in the factory in Manchester.[1116]

[1111] 1973. The Minister for Industrial Development: Dear Mr. Lundgaard. *Elkems historiske arkiv. ELK 0001 M002.*
[1112] 1975. Manchester's Mini-Steelwork. *Steel Times*.
[1113] Interview with Lundgaard and Ismar, August 2015
[1114] Sundt, H. 1975. Hvordan er vi blitt motatt, og hvor langt er vi kommet idag. *Received from Erik Lundgaard.*
[1115] 1975. Manchester's Mini-Steelwork. *Steel Times*.
[1116] Interview with Lundgaard and Ismar, August 2015

## 7.4 Future expansions

In 1975, after years of planning, and one failed Industrial Development Certificate application, Elkem-Spigerverket's investment in England was finally up and running. From the initial phases of its first investment, ES was already planning to expand its production in the UK, and what started as a mini steel mill in Manchester in 1975 was soon expanded to include more projects and firms in the UK. The first expansion was the acquisition of a mill for production of wire rod in 1976. Then, in 1979, ES acquired two new companies, a small scrap metal dealer and a mini steel mill in Liverpool. During its first five years in the country, Elkem-Spigerverket grew into a large producer of steel with a high production capacity in England.

### 7.4.1 Johnson & Nephew (Mill Street) Ltd.

Elkem-Spigerverket's first expansion into the English steel industry was in 1976 when it acquired a wire rod producer, Johnson & Nephew (Mill Street) Ltd. The decision to acquire this company was partly taken due to the steel crisis and the overproduction of steel on the British market.[1117] The usage of reinforcement steel, which ES produced at the Manchester Steel Mill, was in decline, and three new mills producing reinforcement steel were in the process of being built.[1118] The acquisition of Johnson & Nephew gave ES a more extensive selection of products it could produce and sell based on the steel produced at the Manchester mill. Thus, ES's first acquisition in the British steel market was a direct consequence of the steel crisis.

Johnson & Nephew was a subsidiary of Johnson and Firth Brown (Ltd). ES had previously had contact with this company because both the site and the plans for the Manchester Steel Mill had been purchased from them. The new ES subsidiary, the mill for the production of wire rod and a wire processing plant, was situated adjacent to the existing steel mill.[1119] ES initially intended to have 75 per cent ownership of the

[1117] Walker, H. 1974. Another mini plant. Manchester Steel. *Steel Times*.
[1118] Lundgaard, E. 1982. Foredrag i Värmländska Bergmannaförening, Internasjonalisering av Elkem. Received from Erik Lundgaard.
[1119] 1976. Søknad om Valutalisens for investering i utlandet. *Elkems historiske arkiv: ELK 0001 M002.*

subsidiary, but actually acquired all of the shares in June 1976 after what was described as "lengthy and difficult discussions".[1120] The reason Johnson and Firth Brown (Ltd), the previous owners of the subsidiary, wanted to sell was that it saw the work of Johnson & Nephew as being outside of its primary line of work.[1121] Johnson and Firth Brown had also considered selling Johnson & Nephew in 1974 when it was working towards a merger with British Steel Corporation in response to the European Steel and Coal Communities' monopoly regulations.[1122] The reason for the long and challenging discussions between Johnson and Firth Brown and ES was disagreement regarding the appropriate price for the subsidiary. The acquisition was further complicated when Johnson and Firth increased the requested sale price after months of discussion between the two companies. In a letter to Johnson and Firth Brown, Lundgaard argued that:

> *[…] the market situation is an area of serious concern. The new capacity coming on stream, and the generally uncertain business conditions in the years ahead, are elements that we have to consider. With the marketing, capacity and possible technical problems that we may face on this venture, I am sure you appreciate our reservation to use a profit forecast, which in our opinion is very optimistic, indicating a high purchase price, and thus possibly give a disappointing return on our investment*.[1123]

ES argued that the asking price for Johnson & Nephew (Mill Street) was excessive compared to its worth in the current steel situation, and that Jonson and Firth was being overly optimistic in its expectations for the future of the steel market in the asking price. Lundgaard further argued, "in order to obtain the sincere interests of our board on this matter, we therefore consider it necessary to have financial arrangements that offer a reasonable balanced commercial risk".[1124] The original asking price for the subsidiary was therefore considered too high, and thus created a financial risk that ES was not prepared to take. The discussion regarding the price led to disagreements between the two firms, and Lundgaard further wrote in regard to the price that, "[…] we are therefore quite surprised that you after having reduced the equity by £0.5

[1120] 1976. For the Attention of the Examiner in Admirality. *Elkems historiske arkiv: ELK 0001 M002.*
[1121] 1976. Søknad om Valutalisens for investering i utlandet. *Ibid.*.
[1122] 1974. British Steel Corporation and Johnson and Firth Brown: Proposed merger. *FCO 30/2342, UK National Archives, Kew.*
[1123] 1976. Letter to Tim from Erik Lundgaard. *Elkems historiske arkiv: ELK 0001 M002.*
[1124] Ibid.

million, now also state a higher cash purchase price […]".[1125] The payment for the shares was finally agreed at £2.2 million. ES also took over a loan of £1.3 million that Johnson and Nephew owed to its previous owners. After the company had been acquired, it was organised as a subsidiary under Manchester Steel Limited and received the majority of its steel from the Manchester Steel Mill.[1126]

ES and Johnson & Firth Brown also entered a trade agreement whereby Johnson & Firth Brown agreed to purchase an average of 50,000 tons of rod per annum for a ten-year period.[1127] ES also hoped that some of the products created at this new subsidiary could be exported to its wire drawing plant in Norway. This would, ES argued, also be beneficial for the British market, since it had the potential to "[…] generate UK exports in excess of £2 million per annum".[1128] Johnson & Nephew (Mill Street) fared better, financially, than the steel mill;[1129] ES spent several million pounds on modernising the equipment at this subsidiary: in 1980, for example, £1.7 million was spent on a new laboratory and coil handling equipment.[1130]

### 7.4.2 Bidston Steel Ltd.

Elkem-Spigerverket was planning not only one, but two, expansions related to its steel production in England in 1979. The first and most important of this was Bidston Steel Ltd (BSL), a company with a mini steel mill and a rolling mill outside of Liverpool, located only an hour away from the mini steel mill in Manchester. The BSL mill was one of England's most modern mini steel mills. It was a combined mill, which could produce both steel rods and wire rods.[1131] The British Reinforced Concrete Engineering Company, a subsidiary of Hall Engineering, had originally owned the mill. Hall Engineering had begun the planning process for the steel mill in 1972, and it had been in operation since March 1975. Hall Engineering had also had an Industrial Development Certificate rejected for the preferred location, and had to relocate the

[1125] I1976. Letter to Tim from Erik Lundgaard. *Elkems historiske arkiv: ELK 0001 M002.*
[1126] 1976. Søknad om Valutalisens for investering i utlandet. *Ibid.*
[1127] 1976. Announcement of Acquisition. *Ibid.*
[1128] 1976. Attention mr Knut Martinesn. *Ibid*
[1129] Sogner, K. 2003: 232.
[1130] 1981. Johnson & Nephew (Mill Street) Ltd. *Steel Times*.
[1131] Sogner, K. 2003: 232.

plans to the area outside of Liverpool. There are thus many similarities between Elkem-Spigerverket's investment in Manchester Steel Mill, and Hall Engineering's investment in Bidston Steel.

Hall Engineering, the former owners of Bidston Steel, had decided to build the mill due to the shortage of steel in the UK in the early 1970s. The owners decided to sell the steel mill when steel shortage was no longer a problem in 1979, due to the steel crisis.[1132] The rationale underlying ES's decision to purchase Bidston Steel was to further its interests in the steel industry in the UK, and to secure deliveries to the steel production in Manchester. The Johnson & Nephew (Mill Street) rolling mill had a higher production capacity than the steel mill in Manchester was able to produce.[1133] By acquiring BSL, ES became less dependent on buying steel from other producers to fill the capacity gap. Thus, ES argued that the acquisition would give "[…] flexibility to the Group's steel production that will enhance competitiveness".[1134]

The plans for an expansion to a second steel furnace went back to the planning of the steel mill in Manchester in the early 1970s. It was decided in 1979 that acquiring BSL was a cheaper option for expanding than building a second steel furnace in Manchester. Another advantage of acquisition over expansion was that it would not contribute to increasing the overcapacity that the steel industry was struggling with at the time.[1135] By acquiring BSL rather than expanding the existing mill, ES could simultaneously save money and eliminate a strong competitor.[1136] The cost for Bidston Steel Mill was £10.5 million, or approximately 100 mill NOK. Half of this was paid upon the acquisition, while the remainder was paid over the next five years. Norges Bank, the central bank of Norway, lent £5 million to Manchester Steel, through Elkem-Spigerverket. As this meant that ES was transferring currency out of Norway to the UK, it had to apply for a currency licence. As a necessary condition for this, ES had to commit to submitting a transcript of the balance sheets for each financial year to

[1132] 1981. Bidston Steel Ltd. *Steel Times*.
[1133] 1979. Søknad om lisens for investering i England. *Elkems historiske arkiv: ELK 0001 M002.*
[1134] 1979. Ekspressen nr. 21. Elkem-Spigerverket overtar stål- og valseverk i England. *Ibid.*
[1135] Lundgaard, E. 1982. Foredrag i Värmländska Bergmannaförening, Internasjonalisering av Elkem. *Received from Erik Lundgaard.*
[1136] 1981. Manchester Steel Ltd. *Steel Times*.

Norges Bank. It would also have to seek consent from the Bank if it was to either transfer the shares in BSL to other owners, or if it was to broaden BSL's operation to comprise new purposes.[1137] These conditions were mandatory for any company that received a currency licence.

As the owners of several steel mills in northwest England, ES hoped to increase its control over the scrap iron market, and thereby increase its profits.[1138] It was also considered essential to continue the production of steel in Norway. The only restriction on the acquisition of BSL, which was raised in a board meeting in August, was that this acquisition was not to have a negative impact on ES's steelworks in Nydalen in Norway.[1139] ES took over all the ordinary shares of Bidston Steel in August 1979.[1140] The Bidston Steel mill had a production capacity of 140,000 tons of steel annually, which was slightly higher than the capacity of the mill in Manchester. The rolling mill connected to Bidston Steel only had the capacity to roll 80,000 tons of steel; the rest would be transported to Manchester Steel Mill to be rolled there.[1141]

### 7.4.3 H. Stewart (Metals) Ltd.

Elkem-Spigerverket also acquired the English company H. Stewart (Metals) Ltd. in 1979, which bought and sold scrap metal. ES wanted to acquire H. Stewart because it saw it as advantageous to control a company involved in buying scrap metal, which could be used for the Manchester Steel mill. ES saw it as "unfortunate" for the Manchester Steel mill that it was operating on the scrap market under their name.[1142] The acquisition of this company also gave Manchester Steel the opportunity to sell second-class wire rod. The acquisition of H. Stewart was a relatively small investment, especially compared to Bidston Steel. ES bought the scrap dealer company from its owner Mr Stewart, for just £37,000.[1143] In 1984, there were plans to expand this

[1137] 1979. Direkte Investeringer i Storbritannia. *Elkems Historiske arkiv: ELK 0001 M002.*
[1138] Sogner, K. 2008.
[1139] 1979. Minute of meeting. Elkem-spigerverket 30. august 1979. *Received from Erik Lundgaard.*
[1140] Ibid.
[1141] 1979. Ekspressen nr. 21. Elkem-Spigerverket overtar stål- og valseverk i England. *Elkems Historiske arkiv: ELK 0001 M002.*
[1142] 1979. Elkem-Spigerverket (UK) Ltd. - Kjøp av aksjeselskap. *Ibid.*
[1143] Minute of meeting. Elkem-spigerverket 30. august 1979. *Received from Lundgaard.*

subsidiary with a £2 million investment. The intention was that the subsidiary would expand into ship reparation and shipbreaking facilities; this would have provided Bidston Steel Mill with scrap metal.[1144] However, the expansion was never carried out.

## 7.5 Elkem's withdrawal from England

In 1980, over 800 people worked at the Elkem-Spigerverket subsidiaries in England, and Manchester Steel had a turnover of 589 million NOK.[1145] However, the steel mill never performed as well as ES had expected. The production quotas set by the EEC complicated the situation for ES's steel production. The quotas were based on previous steel production, and ES's quotas were relatively low compared to what they were capable of, due to it only having had steel production in England for a few years.[1146] To complicate the issue further, Jernverket, the state-owned company in Norway, had made it clear that it wanted to increase its market share in Oslo and thus take market shares from ES.[1147] The name of the company was changed back to Elkem in 1980; the steel production in Oslo retained the name Christiania Spigerverk, although this time as a subsidiary under the Elkem umbrella.

The first consideration of withdrawal had come in 1977, only a year and a half after production had started. At this time, withdrawal was one of many options that were discussed to address the fact that Manchester Steel Ltd. needed a liquid supplement of £1 million to be able to continue operations.[1148] However, the problems in 1977 were resolved, and operations continued. The next discussion of withdrawal came in 1981-1982, when Elkem once again considered selling the subsidiaries as a solution to the increasing deficit the company was accumulating. This time, it got further into the process; Elkem's mills were at this time running at only 50 per cent capacity, and the mills were expected to have a loss of £3 million pounds that year. Elkem was offered £16 million from a private consortium supported by government money to close down

[1144] 1984. £2M scrap operation for Meyerside. *Steel Times*.
[1145] NOU 1981:41. Stålutredningen: den norske stålindustris konkurransesituasjon. Oslo, Universitetsforlaget.
[1146] Lundgaard: Interview with Lundgaard and Ismar, August 2015
[1147] Sogner, K. 2003: 232-235.
[1148] 1977. Refinanisering MSL. Elkems historiske arkiv: ELK 0001 M003.

the mill; however, it chose to continue operations instead of accepting the offer.[1149] One of the main reasons it chose to do this was because the workers volunteered to have their salaries reduced.[1150] Another reason was long-running contracts, which Elkem would have to continue to pay after the mill was sold. The after-closure costs were high, and Elkem was not offered as much as it would have preferred to receive to close the mills.[1151] The expected costs of the closure were approximately £6-7 million, plus potential income tax of more than £2 million, which meant that Elkem's income from the sale would be more than halved. The requirement set by the private consortium regarding restrictions of steel exported from Elkem's production in Norway to the UK was also considered unacceptable:

> *[…] we were bound through decisions made by our Corporate Assembly not to enter into any agreement in the UK on behalf of MSL, which could in any way restrict the operations of Christiania Spigerverk, including export of reinforcing bars to the UK.*[1152]

This had been an important aspect of the investment from the planning stage in Christiania Spigerverk in 1969. It had always been considered as important that the FDI did not have any negative implications on the operations in Norway. The requirements set out by the private consortium were therefore considered unacceptable, and Elkem decided to retain the subsidiaries in England.

However, the profit loss continued and in 1985 Elkem finally decided to sell its interests in Manchester Steel Ltd. to the company 'Allied Steel and Wire', which was 50 per cent owned by the British Steel Cooperation.[1153] Elkem's two mini steel mills, the wire rolling company, and the scrap metal dealership were sold for £2.5 million cash. Allied Steel and Wire also took over the loans Manchester Steel had, and Elkem received four per cent of the shares in Allied Steel and Wire itself.[1154] The decision to sell the company to Allied Steel and Wire was much debated in the UK and not well

[1149] 1982. Business of the house. HC Deb 01 December 1982 vol 33 cc346-71.
[1150] 1981. Frivillig lønnsreduksjon ved norskeid stålverk. *Aftenposten 3.februar*
[1151] Lundgaard: Interview with Lundgaard and Ismar, August 2015
[1152] 1982. Letter to BSC, dated 24.November 1982. *Elkems historiske arkiv: ELK 0001 M002.*
[1153] 1985. Meeting with Frank Field, MP to discuss the proposed closure of Manchester Steel's Bidston Works. *PREM 19/1610, UK National Archives, Kew.*
[1154] 1985. Valuta. Investering i utlandet. *Elkems historiske arkiv: ELK 0001 M002.*

received, partly due to the loss of jobs it would mean. The decision was met with harsh criticism from the Council for Manchester who argued, "You are well aware of the way in which this part of East Manchester has been devastated in recent years by closures and redundancies, and you have now chosen to contribute to that decline".[1155] Allied Steel and Wire planned to close down the Bidston steel mill, but also possibly other parts of Manchester Steel as well, after it had been acquired.[1156] The complaints from the Council of Manchester argued further that, "I, and my Council, regard this as a callous decision which shows no thought or feeling for the many hundreds of people who will now lose their jobs".[1157] In response, the president of Elkem at the time, Kielland, explained in a letter that the withdrawal was justified and necessary. Manchester Steel Ltd. had lost £3.8 million over the previous 16 months, and more than £12 million in total since 1975. With the overcapacity in the steel industry, Elkem concluded that this situation was not likely to improve in the future.[1158] However, Elkem was also criticised by the British parliament for the way in which the withdrawal was implemented:

> *This Norwegian company not only prides itself on having good industrial relations, but it usually talks of worker involvement. However, when we consider Elkem's involvement in this matter, we see that it is not just a question of what is left to be desired but that practically everything is left to be desired about its behaviour.*[1159]

In the same year, 1985, Elkem sold off its steel production in Norway, and the company decided to leave the steel and iron industry to focus on ferroalloy production.[1160] Allied Steel and Wire closed down Bidston Steel and Johnson & Nephew (Mill Street) shortly after the sale, while the Manchester Steel mill was closed down in November 1985.[1161] Thus, only 10 years and a few months after production had first started, Elkem's investments in England were closed.

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[1155] Stringer, G. 1985. Letter about the closedown of Manchester Steel. *Elkems historiske arkiv: ELK 0001 M001.*
[1156] 1985. Meeting with Frank Field, MP to discuss the proposed closure of Manchester Steel's Bidston Works.: *PREM 19/1610, UK National Archives, Kew.*
[1157] Stringer, G. 1985. Letter about the closedown of Manchester Steel. *Elkems historiske arkiv: ELK 0001 M001.*
[1158] 1985. Reply to Graham Stringer about the closedown of Manchester Steel. *Ibid.*
[1159] 1985. Manchester Steel Ltd. (Closure). HC Deb 05 June 1985 vol 80 cc414-22.
[1160] Sogner, K. 2003: 253.
[1161] 1985. Closure for Manchester Steel. *Steel Times*.

In particular, it was first Christiania Spigerverk's, and later Elkem-Spigerverket's view on the future that had gone wrong. The actual steel consumption in the UK turned out to be only half what Spigerverket had forecast when it decided to invest. Spigerverket was not the only company that had seen a potential profit from steel production in the UK, and the total production capacities in the country more than doubled in the period that ES was involved. One of the competitors in reinforcement steel was British Steel Corporation (BSC), which ES had not expected prior to investing; furthermore, BSC was supported by the government, which made it a particularly strong competitor.[1162] ES was also not the only company to invest in mini steel mills in the United Kingdom in the early 1970s; as many as six other smaller and bigger companies announced their intention to invest in mini steelworks around the same time as Elkem-Spigerverket was planning its investment.[1163]

Although the FDI in Manchester and the United Kingdom was a failure, this did not deter ES from making future investments abroad. By 1981, the company had invested in production companies in Denmark (a wholly owned factory), Iceland (45% ownership), the Netherlands (25% ownership), the USA (49% ownership, and self-owned), and Brazil (50% ownership).[1164] The investment in Brazil was a joint venture with another Norwegian company, and was completed in 1976, just a year after the investment in Manchester. This factory produced electrode paste for the smelting industry in Brazil.[1165] Besides the steel mills in Manchester, ES also had 25 per cent ownership interest in Alcoa of Great Britain. Christiania Spigerverk continued with steel production in Norway as a part of the state-owned Jernverket until 1988; it also retained ownership of Kings Lynn, the sales company in England, until the early 2000s.

[1162] Lundgaard, E. 1982. Foredrag i Värmländska Bergmannaförening, Internasjonalisering av Elkem. *Received from Lundgaard.*
[1163] 1974. Steelworks HC Deb 08 July 1974 vol 876 cc330-1W.
[1164] Arnesen, A. 1981. Elkem -Ferrolegeringer - Internasjonalisering. *Industridagene 81: Internasjonale muligheter*: 281.
[1165] Lundgaard, E. 1982. Foredrag i Värmländska Bergmannaförening, Internasjonalisering av Elkem. *Received from Lundgaard.*

## 7.6 Risk management

Risk management in Christiania Spigerverk and later Elkem-Spigerverket's investment does not seem to have played a significant role in the investment decision. The emphasis in the preceding research was on how to run the mill most efficiently and produce high-quality steel, rather than on the risks involved in the investment. ES did not have a defined process for identifying, assessing, or deciding on the risks it intended to manage. Spigerverket and later ES believed that it had a competitive advantage, that it knew the market well through Kings Lynn, and that the investment would be profitable, even when potential issues such as the future price of steel and participation in the EEC were highlighted. As Lundgaard put it, "we had then, through our bend and cut facility, our relations with others, we had the technical expertise that was needed, so we felt that we had fully covered ourselves very well".[1166]

One of the few areas where risk did have implications concerned the decision to invest in England rather than the USA. Although the market in the USA was considered promising, with no mini steel mills in the area and excess scrap metal, ES judged investing there to be too risk-filled. It lacked knowledge of the American market and it was geographically distant, so ES decided on what it saw as the safer investment choice; thus, it chose to avoid what it saw as the largest risk. It also helped that the relationship between Norway and the United Kingdom was positive after the Second World War, and that ES felt welcome and respected in the country.[1167] ES followed an internationalisation process model where FDIs in a physically or culturally close country were considered less risky.[1168] It was the only firm out of the three studied in this research that chose a closer country to invest in as a risk-management strategy.

One of the major issues with the investment was likely the apparent lack of research within Christiania Spigerverk and later Elkem-Spigerverket regarding the competition,

[1166] Lundgaard: Interview with Lundgaard and Ismar, August 2015
[1167] Interview with Lundgaard and Ismar, August 2015
[1168] Johanson, J. & Vahlne, J.-E. 1977. The internationalization process of the firm-a model of knowledge development and increasing foreign market commitments. *Journal of international business studies***,** 23-32. And Amdam, R. P. 2009. The internationalisation process theory and the internationalisation of Norwegian firms, 1945 to 1980. *Business History,* 51**,** 445-461.

the market, and even the political climate in the UK. Spigerverket had not expected, and not prepared for, the rejection of the Industrial Development Certificate. The application was better prepared on the second attempt, with a focus on noise and environmental impact. The lack of research on the competition could also explain why the increased popularity of mini steel mills came as a surprise to the company. When Christiania Spigerverk decided to invest, there was only one other mini steel mill in the UK. However, this had the potential for a large output and several other firms were also planning to expand their capacity in the early 1970s.[1169] ES's advantage, due to its experience with this type of production, quickly disappeared as more companies gained this knowledge. Ismar described the popularity of the mini steel mills as having increased "dramatically".[1170] The steel crisis also came as a surprise to the firm.[1171] Instead, Spigerverket argued that because it had years to build up its market shares before the factory started production, sales "should not represent any significant risk".[1172] Spigerverket and later ES was not the only company to make an incorrect prognosis regarding the future of the steel market, and most investors were expecting the steel usage to continue to increase in line with production capabilities. The steel crisis hit Europe before the factory was finished and opened, but it does not appear that ES re-evaluated its decision to invest; by that time, a considerable amount of resources had been invested in the project, and withdrawing would have meant a definite and significant loss.

However, one of the risks that Elkem-Spigerverket was evidently concerned about was the high number of unions in the UK. This is one of few risks that ES developed management plans for in advance of the investment. In regard to this, Ismar argued, "We would never have gone in unless we felt that we had full control, or could take complete control over the chaos that came with unions in England".[1173] Avoiding conflicts with the many unions was seen as necessary for the success of the investment. The importance assigned to this likely had a background in the prominence of

[1169] 1971. Way un-barred for Norway. *Steel Times*.
[1170] Ismar: Interview with Lundgaard and Ismar, August 2015.
[1171] Lundgaard: Interview with Lundgaard and Ismar, August 2015.
[1172] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Elkems historiske arkiv: ELK 0001 M001*.
[1173] Ismar: Interview with Lundgaard and Ismar, August 2015.

company democracy in Christiania Spigerverk's factories. This risk was mitigated by establishing a relationship with the unions in advance of the factory opening, so that ES only had to deal with a few unions rather than several. ES also implemented corporate democracy based on the model it had been using in the factory in Norway, in order to build a positive relationship between the management and the workers at the mill. The strategy appears to have been successful, as neither Lundgaard nor Ismar recalled experiencing any worker-related issues once the factory was operational.[1174] This country specific risk was thus managed through control and cooperation.[1175]

Christiania Spigerverk had discussed implementing risk-management strategies in the form of joint venture ownership. Joint ventures are considered to be less risky than wholly owned subsidiaries because the risk is shared between more participants.[1176] Several parties were considered as potential partners, while partners from within the scrap metal industry were seen as a last resort option; this was because joint ownership with a partner in the scrap metal industry would mean less flexibility in regard to the purchase of scrap material, which was seen as a potential risk. Instead, local consumers of steel were considered for a joint venture. The paper *Steel Times* described the situation:

> *Spigerverket is keen to find additional British backing for its scheme with a partner able to offer a tied consumption outlet. This particular aspect is understandable, as the fluctuating demand for reinforcing bars from building as construction industries has often led to a position of oversupply in recent years […].*[1177]

Participants from the construction industry would have ensured a sale from the steel mill, and would likely have been very beneficial in the context of the steel crisis. Spigerverket also considered a joint venture with the British Steel Corporation, which would have had several benefits. First, it would have granted Spigerverket closer connections to the steel industry, and could potentially have stopped BSC producing

[1174] Interview with Lundgaard and Ismar, August 2015
[1175] Miller, K. D. 1992. A framework for integrated risk management in international business. *Journal of international business studies***,** 311-331.
[1176] Anderson, E. & Gatignon, H. 1986. Modes of foreign entry: A transaction cost analysis and propositions. *Journal of international business studies***,** 1-26.
[1177] 1971. Way un-barred for Norway. *Steel Times*.

the same type of reinforcement steel later. It would also have been beneficial when liaising with local and central authorities.[1178] However, this discussion of a potential joint ownership with BSC was one of the reasons Christiania Spigerverk was first denied the Industrial Development Certificate, so the prospect of having BSC as a shareholder in the investment was not solely advantageous.

After the merger of Elkem and Christiania Spigerverk, the decision was taken to establish a wholly owned mini steel mill, as ES wanted to have full control of the firm.[1179] ES relied on collaboration to gain insight into the local market, rather than on having local partners in the venture.[1180] This choice of ownership structure increased both the control over the firm and the risks involved with the investment.[1181] Ultimately, ES's investment would most likely have benefitted from the shared ownership structure that was discussed in the earlier phases of the investment plans, as having partners that used the steel being produced would have helped protect the investment against the fluctuating steel demand.[1182] However, the merging of the two companies before the investment meant that the firm was financially stronger, and had a stronger foundation; thus, the steel crisis likely did not affect the merged Elkem-Spigerverket as much as it might have done to Christiania Spigerverk alone. In 1979, for example, ES was still operating with a surplus, due to its ferroalloy and aluminium production.[1183]

What is interesting regarding ES's investment is how its solution to the problems that arose in relation to the steel crisis was to increase its involvement in the UK. The rationale here was that higher investments would enable more control and thereby higher profit. The decision to continue to invest rather than divest was likely impacted by "barriers to exit". Divestment is a difficult decision to take due to economic factors,

[1178] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Elkems historiske arkiv: ELK 0001 M001*.
[1179] Interview with Lundgaard and Ismar, August 2015
[1180] 1973. Stålverksprosjekt / England. *Elkems historiske arkiv: ELK 001 M001.*
[1181] Anderson, E. & Gatignon, H. 1986.
[1182] 1971. Way un-barred for Norway. *Steel Times*.
[1183] 1979. Orientering fra møtet I Elkem-Spigerverkets bedriftsforsamling. Ekspressen nr. 23. *Elkems historiske arkiv: ELK 0001 M002.*

structural factors, and managerial factors.[1184] It is clear that both managerial factors and economic factors had an impact on why ES continued its investment. For instance, regarding the decision in 1982 to continue the investment, Lundgaard explained:

> *No, you do not want to give up, you know. So you kept going […] one of the problems was that we had entered into a number of long-term contracts, both on electricity and on some other things that we had to pay for at least one year after.*[1185]

When ES invested in England in the early 1970s, the plan was to expand the factory in Manchester. After the steel crisis hit, the plan changed to involve acquisitions of other companies, rather than expanding the Manchester steel mill. In 1976 it was argued that "[…] it is no longer considered economically viable to build a complete rolling mill and finishing facilities to produce 150,000 reinforcement steel per annum".[1186] Acquiring companies had clear benefits compared to expanding production, as this eliminated competition, rather than increasing production of steel on the British market. This meant that ES would occupy a stronger position on the British market, and would be less dependent on other firms to produce at full capacity. However, it also meant that the company was more financially involved. Thus, the financial crisis did have some impact on the company's investment decision, but the option of not expanding the investment does not seem to have been much discussed.

The first expansion in 1976 increased the production range of the Manchester Steel mill. This gave the company greater flexibility, which was useful in the steel crisis. ES demanded that Johnson & Nephew take the steel crisis into consideration when deciding on the asking price for the firm, and they refused to pay the price initially requested, arguing that, "[…] the market situation is an area of serious concern."[1187] The original asking price by Johnson and Nephew was also considered too high to represent a "[…] reasonable balanced commercial risk,"[1188] and new agreements had to be reached before ES acquired the rolling mill. However, even though acquiring this

[1184] Boddewyn, J. J. 1983. Foreign and domestic divestment and investment decisions: like or unlike?. *Journal of International Business Studies*, 14(3), 23-35.
[1185] Lundgaard, Interview with Lundgaard and Ismaar, August 2015.
[1186] 1976. Attention mr Knut Martinesn. *Elkems historiske arkiv: ELK 0001 M002.*
[1187] 1976. Letter to Tim from Erik Lundgaard. *Elkems historiske arkiv: ELK 0001 M002.*
[1188] Ibid.

factory had the benefit of giving ES greater flexibility, it also had negative consequences as it contributed to making ES more involved in England, with greater investments. ES's investment in Bidston Steel was substantial, and expanded its capacity and the company's involvement in the English steel production significantly. This investment was also made only a few years before ES decided to withdraw from steel in England.

It is clear that risk did play a role in the investment by Christiania Spigerverk and Elkem-Spigerverket, but perhaps not to the degree that it should have. Christiania Spigerverk believed that the investment had the potential to be profitable, and the merged company agreed with this belief. Elkem-Spigerverket continued to expand the investment in England until deciding to withdraw from the entire portfolio of investments in the country, just 10 years after the first factory opened.

## 7.7 Summary and conclusions

Christiania Spigerverk was considering and planning the investment in the UK from the late 1960s; it wanted to build a mini steel mill that produced steel based on scrap metal in England, believing that this would be a successful investment due to both its existing know-how and the British steel market at the time. It does not appear that the company foresaw many risks or disadvantages to the investment. Chesterfield was decided on as the location for the mill, and an Industrial Development Certificate application was submitted to the industrial minister in the United Kingdom. After the application was denied and Christiania Spigerverk merged with Elkem, the work towards this FDI continued. Following discussion about whether Manchester or Pontypool would be the better location for the mill, Manchester was chosen; Manchester Steel Ltd was established in 1973 and opened in 1975, just a year after Europe was hit by a steel crisis. The crisis had a huge impact on the success of the investment. Nevertheless, Elkem-Spigerverket decided to continue its involvement in Manchester Steel and even expanded the investment. The first expansion was accomplished in 1976 with the purchase of a rolling mill. In 1979, two other companies

in England were acquired, a small scrap metal firm and a larger mini steel mill, to supplement the steel the firm was already producing.

However, ES's investment in the UK was never a particularly successful one. The steel crisis in 1974 and the subsequent overproduction of steel hit both the British steel market and Elkem-Spigerverket's investment hard. When the planning process first commenced, Christiania Spigerverk had seen several advantages to investing in a mini steel mill in the UK; it was believed that the company had the knowledge of both the market and the production of steel in mini mils to have a competitive advantage. It also saw the British steel market as having high potential for profit. Like many others at the time, the company did not foresee the steel crisis in 1974, and thus was unprepared for it. Christiania Spigerverk had been warned about a potential overproduction of steel in the probe study, but the same study had also argued that the mini steel mill would be "strongly placed" if overproduction became an issue.[1189] ES was also not expecting the increased competition from other, similar mini-mills in the UK. It had primarily focused on the benefits and positive risks of the investment, rather than the negative risks. The investment would likely have performed better if a joint venture structure had been realised. This had been a part of the original plans for the investment, and would have spread the risk amongst participants and ensured long-term sales contracts. Although the investment was not performing well, ES remained in England in the hope that some of the issues created by the steel crisis would be resolved. However, by 1985, Elkem had sold off Spigerverket in Norway, and would not maintain any further profit loss in England. Therefore, 10 years after the mill in Manchester had produced its first steel, Elkem withdrew from England and sold the mill to Allied Steel and Wire, who closed it down shortly after. Thus, the investment that Christiania Spigerverk had initially begun planning in the early 1970s ended, after years of struggle in the midst of a steel crisis.

[1189] 1971. Mini Steel works. Working Report on the Prope study. *Elkems historiske arkiv: ELK 0001 M001*.

# 8.0 Risk management: Comparison and discussion

Interest in risk and risk management has grown since Dyno, Norcem, and Elkem-Spigerverket completed their first FDIs in the 1960s and 1970s. However, as the previous chapters on the three firms have shown, risk and risk management were evidently considerations in their investments. All three firms conducted research before they invested abroad, they chose joint ventures in several of their investments, and they worked with the local government, institutions, and labourers to manage what they saw as potential risks. A majority of the investments can be considered to have been successful, and several of the investments still exist under new owners today. However, some of the investments failed, and ended after a few years without achieving any of the original objectives set by the company. This chapter will look at how the three firms viewed, assessed, and managed the risks involved with their FDIs by identifying similarities and differences between the three firms' investment backgrounds, and their perspectives on risk and risk management. The chapter will also identify and discuss why and where the firms chose to take similar or different paths in their risk management, and suggest some potential explanations for this. It will then look at how the three firms managed risk compared to how modern theories and research on risk management in FDI argue this can and should be done. Finally, the chapter will identify, discuss, and explain the similarities and differences between the three firms' decisions regarding the risk management in their investments.

## 8.1 Brief recap of investments and research aims

The three firms, Dyno, Norcem, and Elkem-Spigerverket, invested all over the world during the 1960s and 1970s. This section will briefly recap the firms' investments during this period. NSI/Dyno Industrier was the first of the three firms to invest abroad, investing in a joint venture that produced resins in West Germany in 1966/1967. During the early 1970s, Dyno grew into an international firm with investments in Singapore, England, Denmark, and Finland. Its investments were mostly within the production of industrial adhesives, but it was also involved in the production of plastic sprayers and the production of resins. The second firm in this research, Norcem, made

its first FDI in Ghana in 1967. This investment was a joint venture with the Ghanaian government to establish two cement mills. There were 10 years between Norcem's first and second investments abroad, although the company was heavily involved with export and management tasks around the world throughout this time. Norcem's next investment was to the Philippines, where it invested in a plastic boat factory in 1976. Then, in 1977, Norcem invested in cement-related industries in both Liberia and Ras al-Khaimah. The final firm, Elkem-Spigerverket (ES), invested in a mini steel mill in the United Kingdom; the investment, named Manchester Steel Mill, opened in 1975. ES expanded this investment by acquiring a steel roller in Manchester in 1976, and a scrap metal dealer and second steel mill in 1979. Elkem withdrew from the investment in 1985 after years of financial loss.

This research has studied the risks the three firms were concerned with when they invested abroad, and how they chose to manage the risks they regarded as important. The central part of this research has discussed the three firms' investments and the decisions relating to these investments. The previous chapters have also discussed how the three individual firms chose to manage the risks they identified. The aim of the research has been to answer questions regarding why the three firms pursued FDIs, how they viewed the risks involved, and how they chose to manage these risks. In addition, a further aim has also been to establish how the risk management employed by the three firms compared, and to what extent the firms used modern risk management approaches in their investments.

**Table 13:** FDIs by year.

| Year | Company | Country | What | NOK Invested | Withdrawal |
|---|---|---|---|---|---|
| **1966/ 1967** | NSI/ Dyno | West Germany | Production of resins | | 1971 |
| **1967** | Norcem | Ghana | Cement mills | 5 million | |
| **1970** | NSI/Dyno | Singapore | Industrial adhesives | 3.84 million | |
| **1971** | Grubernes / Dyno | England | Plastic sprayers | 2.81 million | |
| **1972** | Dyno | Denmark | Industrial adhesives | | |
| **1972** | Dyno | Finland | Industrial adhesives | | |
| **1975** | ES | England | Mini steel mill | 62 million | 1985 |
| **1976** | ES | England | Steel roller | | 1985 |
| **1976** | Norcem | Philippines | Plastic boats | 1 million | Late 1970s |
| **1977** | Norcem | Liberia | Cement mill | 7 million | |
| **1977** | Norcem | Ras al-Khaimah | Lightweight concrete | 4.48 million | |
| **1979** | ES | England | Scrap metal dealer | | 1985 |
| **1979** | ES | England | Steel mill | 100 million | 1985 |

**Table 14:** Background to and reason for investment

| | **NSI/Grubernes/Dyno** | | | | **Elkem-Spigerverket** | **Norcem** | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Germany 1966/1967 | Singapore 1970 | England 1971 | Denmark /Finland 1972 | England 1973 | Ghana 1967 | Ras al-Khaimah 1977 | Philippines 1976 | Liberia1977 |
| **Background to investment** | Increasing EEC customs made it harder to sell their products in that market. | Increasing competition in Asia and changing preferences from dry to liquid adhesives. | The owners of the firm wanted to sell. | The market was changing. Investment was necessary to keep market share. | Belief in knowledge. Experience from export and Kings Lynn. | Won the rights to deliver cement to the building of a dam. Had exported to the country previously. | Was responsible for the management of a cement factory in the country before the first investment. | Had recently bought a plastic boat factory in Norway that was not performing well. | Had almost a monopoly on cement deliveries to the country prior to the investment. |
| **Reason for investment** | To gain access to the European market. | Wished to keep market share. Strong belief in the profitability of the investment. | High expectations for future income with the acquisition. Loss of sales from Norway otherwise. | Wished to keep existing market share. Current export situation not deemed adequate for the future. | Experience, knowledge, and invested resources. Future investments were made so that Elkem could increase sales | To keep cement deliveries. The investment was primarily about guaranteeing export from Norway. | Knew the country well. Was offered an opportunity and believed it would be profitable. | The Philippines was closer to what the main market and would provide lower production and transport costs. | To keep the deliveries of clinker from Norway. |
| **Expand market share or keep market share** | Expand market and get a foothold in EEC countries | Retain market share, which would no longer be possible with export alone. | Primarily to keep the sales agreement. | Retain its diminishing market share. | Expand market. | Keep markets and ensure deliveries of clinker. | Expand involvement to new products. | Expand markets in an effort to save the subsidiary in Norway. | To keep deliveries of clinker from Norway. |

## 8.2 Risk: Definitions and perspectives

Definitions of what risks are, and how risk should be defined, are much debated. This is highlighted in the previous chapter on risk and the various definitions given for the concept.[1190] The present section will discuss and provide insight into how risk and risk perspectives affected the FDI decisions of the three firms. How the managers and decision-makers in the three firms viewed risk, and how willing to face risks they were, impacted on their investment decisions and the ways in which the firms chose to manage the risks they saw as relevant.

Within the data collected about the three firms, there is no evidence that any of them defined what they considered the concept of risk to mean. It is therefore likely that decision makers involved in the FDI decision had somewhat different perspectives on what exactly constituted risk. There is also no evidence in the data that the three firms made a distinction between uncertainty and risk. It is therefore unlikely that Knight's book from 1921[1191] played an essential role in shaping the three firms' view of risk. This supports Aven[1192] and Borch's[1193] arguments that the division between uncertainty and risk is not compatible with how risk is used in contemporary society. Risk was also not seen by the three firms as something that was purely calculable. For instance, there is no evidence of the risks involved in the investments of the three firms being expressed in terms of utility, as Starr and other economic-perspective scholars have advocated.[1194] Heiberg, the manager of Norcem, argued, "You can never calculate how it will look in one year, in five years, in 19 years. […] you need to have something more, at least on the personal plan".[1195] Scientific risk was seen by Heiberg as insufficient for an FDI decision. This is similar to the argument of Rosa, that scientific risk is not sufficient for risk evaluation and risk management[1196], and to

[1190] Aven, T. 2012b. The risk concept—historical and recent development trends. *Reliability Engineering & System Safety,* 99**,** 33-44.
[1191] Knight, F. H. 2012. *Risk, uncertainty and profit*, Courier Corporation.
[1192] Aven, T. 2012a. Foundational issues in risk assessment and risk management. *Risk Analysis,* 32**,** 1647-1656.
[1193] Borch, K. 1967. The theory of risk. *Journal of the Royal Statistical Society*. Series B (Methodological), 432-46
[1194] Starr, C. 1969. Social benefit versus technological risk. *Readings in Risk***,** 183-194.
[1195] Interview with Heiberg, August 2015
[1196] Rosa, E. A. 1998. Metatheoretical foundations for post-normal risk. *Journal of risk research,* 1**,** 15-44.

March and Shapira's findings on managers' lack of willingness to reduce risk to a quantifiable construct.[1197]

The majority of definitions of risk consider risk as an undesirable state or a negative variation.[1198] This appears to have been true to some degree for the three firms in this research, but not necessarily for all of their investments. Although risk was often mentioned as something the firms wanted to manage, mitigate, or avoid, the managers also saw advantages in taking risks when this could bring potential advances in the future. Dyno, for example, argued that the risks involved with their investment in Indonesia were worth taking because the investment was small and thus "considered to be manageable"[1199], and the potential advantages were seen as significant. Consequently, the definitions of risk utilised by the firms do not fit with Lupton's[1200] definition of risk as something involving the danger of future damage. The definition of risk provided by ISO (the International Organization for Standardization) as the "effect of uncertainty on objects"[1201] is, in those cases, a more accurate description. In some cases, the risk of not investing was seen as greater than the risk of investing. This was particularly the case with Dyno's investments in Singapore and Finland, and partly with their investment in England. It was also relevant for Norcem's investment in Liberia.

Managers' perception of risk and their risk appetite have an impact on firms' risk-orientation, on the decisions taken, how these decisions are reached, and on the management of risks.[1202] This was the case for the three firms studied in this research. There are marked differences in how much risk the managers of the three firms were willing to take, and how they viewed the implications of these risks. Risk perspective

[1197] March, J. G., & Shapira, Z. 1987. Managerial perspectives on risk and risk taking. *Management science*, 33(11), 1404-1418.
[1198] Miller, K. D. 1992. A framework for integrated risk management in international business. *Journal of international business studies***,** 311-331.
[1199] 1972. Limfabrikk - Indonesia. Dyno: Styrende organ etter nøkkel nr. 36. 114 Styret.
[1200] Lupton, D. 1999. *Risk: key ideas.* Routledge.
[1201] Purdy, G. 2010. ISO 31000: 2009—setting a new standard for risk management. *Risk analysis,* 30**,** 881-886.
[1202] Cohrssen, J. J. & Covello, V. T. 1999. *Risk analysis: a guide to principles and methods for analyzing health and environmental risks*, DIANE Publishing. And, March, J. G., & Shapira, Z. 1987.

is a concept that was introduced in marketing literature from the 1960s.[1203] Knight's research from 1921 also argued that risk is related to the judgement and executive power of the person taking the chance.[1204] Risk perception can influence which decisions manager takes, and how a firm responds to the presence of different risks. According to Eduardsen and Marinova, risk perception can affect the timing of internationalisation, the entry mode that is preferred, and a firm's willingness to internationalise.[1205]

Norcem, under Heiberg, was the most risk-willing of the three firms. Managers with international experience are often less risk-averse,[1206] and this was the case for Norcem. Heiberg himself stated that, "We were a little bolder than Elkem and Dyno, a little more 'trigger-happy', to use that word, in a lot of what we were doing".[1207] Norcem's view on risk and the decision-makers' risk perception is reflected in their chosen investment countries. The countries were distant from Norway, both geographically and culturally. Notable examples of this include Norcem's investments in Ghana, Liberia, and Ras al-Khaimah. Several of the countries were also politically unstable countries, where few Norwegian firms had been involved. Norcem's aim to become more international and its decision to hire Heiberg due to his international experience, likely contributed to the firm's risk appetite. Risk preference and perception in a firm can partly be a product of an individual's personality and experience[1208], which was the case with Heiberg and Norcem. Heiberg described his personal views on risk in relation to their investment decisions as " […] very willing to take risks, and felt that this was interesting, this was exciting, here we have advantages".[1209] Norcem's extensive experience with export and the intense competition in the cement industry in Western countries likely also contributed to the

[1203] Adams, J. 1995. *Risk*. University College London Press. London, UK.
[1204] Knight, F. H. 2012: 365-366.
[1205] Eduardsen, J. S. & Marinova, S. T. 2016. Decision-makers' risk Perception in the Internationalisation of Small and Medium-Sized Firms. *International Journal of Export Marketing*, 1(1), 4-26.
[1206] Buckley, P. J., Devinney, T. M. & Louviere, J. J. 2007. Do managers behave the way theory suggests? A choice-theoretic examination of foreign direct investment location decision-making. *Journal of international business studies*, 38**,** 1069-1094.
[1207] Interview with Heiberg, August 2015
[1208] March, J. G., & Shapira, Z. 1987.
[1209] Interview with Heiberg, August 2015

firm's willingness to take risks. Norwegian cement was already being exported to countries in Africa and South America in the 1920s.[1210] As an increasing number of Western countries began to produce cement themselves, markets outside of the West became the only viable option for cement export and FDIs.

Elkem-Spigerverket had the smallest appetite for risk out of the three firms, and was the company that tried the hardest to avoid risks. This was particularly evident in Christiania Spigerverk before the merger, whereas Elkem by comparison was less risk-averse and had more international experience. This helps to explain why the company moved from discussing options for a joint venture to pursuing a wholly owned venture after the merger. The merger also increased the resources the company was willing to commit to the investment.[1211] However, the investment continued as a Spigerverket-controlled investment and therefore with many of the same risk perceptions and aversions as existed prior to the merger. Risk aversion was the primary reason for the selection of the United Kingdom over the USA for the investment. ES chose to invest in a country that was culturally close to Norway, and that it knew well, with the aim of avoiding risks. The firm's relatively high level of risk avoidance compared with the other two firms studied in this research may have been due to Christiania Spigerverk's inferior experience with export. Christiania-Spigerverket was foremost a home-oriented company; the majority of its export went to Scandinavia and to England, where it also chose to invest.[1212]

Dyno can be positioned somewhere between Norcem and Elkem-Spigerverket in regard to its risk appetite and risk perception. Halvorsen, the manager of Dyno, argued,

> *There was no need to hold onto 50 per cent in equity, this could be applied much more usefully. But we could risk losing a good portion of it. But I was young and I put more emphasis on opportunities than the risk.*[1213]

[1210] Gartmann, F. 1990. *Sement i Norge 100 år*, Oslo, Norcem:38.
[1211] Sogner, K. 2003. *Skaperkraft: Elkem gjennom 100 år: 1904-2004*, Messel forl:196-197. And, Interview with Lundgaard and Ismar, August 2015.
[1212] Schieldrop, E. 1961. *Christiania Spigerverk 1853-1961*, Oslo, Grøndahl & Søn boktrykkeri.
[1213] Interview with Halvorsen, August 2015

Dyno invested both in countries that were geographically close to and distant from Norway. The firm took some risks in regard to its investments, though not as many as Norcem. However, Dyno was closer to Norcem than to Christiania Spigerverk in regard to its risk appetite. Dyno also had more experience with international export than Christiania Spigerverk had, and a significant share of Dyno's export went to countries outside of Europe.[1214] Knight argued that the competitive situation and the pressure to outbid rivals has an impact on risk evaluation and management.[1215] This was the case for Dyno, and the company was more willing to accept risks in situations where they were affected by increased competition, for instance in the case of Singapore, where increasing local production put pressure on Dyno to invest if it wanted to maintain its market share.

This section has examined how risk and risk perspectives affected the FDIs of the three firms. In summary, this section has shown that there is no evidence that the three firms distinguished between risk and uncertainty. In general, it was in regard to risk perception and risk appetite that there was the greatest difference in the firms' views of risk. Based on the previous discussion, the risk appetite and risk perspectives of decision-makers can influence FDI decisions and risk management. For the three firms, their risk appetite and risk perception had an important influence on location choices and on how much risk the three firms were willing to take. The differences in risk perception between the three firms were likely influenced by their international experience through export. The three firms' previous experience with export thus influenced how they viewed and reacted to risk. This shows that firms' previous experiences should be a part of internationalisation and risk management discussions, as argued in the "History in theory" and path-dependency discussions presented by Kipping and Üsdiken.[1216] Norcem was the firm with the most international experience from export, and also the firm that was the most willing to take risks. Spigerverket was the firm with the least international experience from export, and also the firm with the

[1214] 1970/71. *Spinas Nytt: Vinter*. NTNU Universitetsbibliotek.
[1215] Knight, F. H. 2012: 365-366.
[1216] Kipping, M. & Üsdiken, B. 2014. History in organization and management theory: More than meets the eye. *The Academy of Management Annals*, 8.1: 535-588.

smallest risk appetite. Dyno is positioned somewhere between the two, though closer to Norcem than to Elkem-Spigerverket.

## 8.3 Background and motives for the investment decision

The background to the three firms, both their individual background and their background as Norwegian firms, played a role in their decisions to invest abroad. This section will discuss why the firms decided to invest abroad, and what they expected to achieve by doing so. The section will also discuss which factors affected the decision. Research has found that Norwegian firms that invest abroad do so primarily for two reasons. They either invest abroad to make their production cheaper and more efficient, or to get closer to or develop their position in new markets.[1217] Both were given as reasons for FDIs for the three firms, although to get closer to or develop in new markets were given as the primary reasons for most of the investments. The most striking similarity between the three firms' internationalisation decisions is the background to their desire to undertake an FDI. The firms' relatively similar positions within their home market, with limited possibilities for expansion, was an important reason why all three looked to do an FDI. This helps to explain why the three firms were relatively early to invest abroad compared to the majority of Norwegian firms.[1218]

### 8.3.1 Position on the home market

The home market played an important role in the firms' investment decision primarily for two reasons. The first reason was the limited size of the Norwegian market, and the second was the three firms' position within the home market in the 1960s and 1970s. In those years, all three firms went through mergers and grew into larger firms; these mergers meant that all three firms were amongst the largest Norwegian firms, and that competition on the home market was eliminated.[1219] The merger between the

[1217] Rusten, G. 2003. Norske bedrifters etableringer i utlandet og det offentliges rolle i forhold til disse investeringene. *SNF arbeidsnotat nr. 6/03*.
[1218] Amdam, R. P. 2009. The internationalisation process theory and the internationalisation of Norwegian firms, 1945 to 1980. *Business History,* 51**,** 445-461.
[1219] Jerman, G. 1995. Fra fred til velstand: 1945-1995: 50 år som forandret Norge, Oslo, Norges eksportråd.

three cement producers in Norway in 1968 created Norcem, and gave this company the monopoly on cement production in Norway. The cooperation and agreement between the three Norwegian cement producers was important to the company's initial involvement in Africa, where a sales and cooperation agreement between the cement producers had meant they could be less concerned about competition on the home market. This was something they had struggled with prior to the cooperation agreement, which was signed by all three cement producers in Norway before they merged.[1220] The agreement allowed room for expansions and involvement abroad. Similarly, the merger between Grubernes and Norsk Sprængstofindustri (NSI) in 1972 made Dyno into the only civil explosives producers in Norway, and the merged firm could then be less concerned about its position on the home market. The former manager, Halvorsen, described the role this merger played for Dyno's internationalisation, stating that, "[…] the reason why one could invest like this was that we had an old organisation that had gotten rid of a competitor in Norway. We cannot conceal the importance of that".[1221] However, the merger and elimination of a competitor on the home market was not the only factor influencing NSI's and Grubernes's FDI decisions, as both firms had invested abroad prior to the merger.

The situation was slightly different for Christiania Spigerverk, later Elkem-Spigerverket, as it had to share the Norwegian market with the state-owned company, Jernverket. ES was thus the only firm out of the three studied in this research that did not gain a production monopoly on the Norwegian market in the 1960s and 1970s. However, the Norwegian market was shared by Jernverket and Christiania Spigerverk; the two firms had an agreement regarding where each of them could sell their products, whereby Spigerverket had Oslo and the surrounding area, while Jernverket had the rest of Norway.[1222] This agreement between Spigerverket and Jernverket lasted until after the first investment by ES in England.[1223] Whilst both firms adhered to the terms of this agreement, Spigerverk did not have to be concerned about its market share competition on the home market. Their position on the home market was thus similar

[1220] Gartmann, F. 1990.
[1221] Interview with Ragnar Halvorsen, August 2015.
[1222] Lundgaard, Interview with Lundgaard and Ismar, August 2015.
[1223] NOU 1981:81. Stålutredningen: den norske stålindustris konkurransesituasjon. Oslo, Universitetsforlaget: 41.

to the position of Norcem and Dyno after their mergers. This shows that all three firms had a relatively secure position on their home markets, and that they were not at risk of compromising this through their involvements abroad. Elkem-Spigerverket's position was not as secure as the others, as it was dependent on Jernverket's decision regarding market shares. The three firms' position on their home market was an important factor influencing their decision to internationalise, and this had implications for why they were willing to accept the risks associated with FDIs.

### 8.3.2 Home market limitations

The three firms' background as Norwegian firms with a small home market is relevant to understanding why the firms aimed to grow into international firms with both foreign export and FDIs. The argument supporting the necessity to internationalise put forth by the firms is similar to the argument presented in the NOU 'Need for Internationalisation by Norwegian businesses. This report stated, "Enterprises acting in the small Nordic countries, have to operate internationally to expand or to preserve its competitive position".[1224] The report further explained that, "The Norwegian domestic market is limited […]. To exploit the opportunities that modern technology and marketing offer, a growing number of enterprises must orient themselves internationally".[1225] Hamilton and Webster's research from 2015 also found that firms in smaller countries come under more pressure to internationalise.[1226] Benito et al. further argue that firms from small open economies tend to demonstrate a higher propensity to internationalise. The size of the home market is the main reason for this, as firms in small open economies have to look for markets outside their home markets if they want to achieve economies of scale.[1227] This explains some of the similarities between the three firms' arguments for FDIs. Norway is a small market, and investing abroad was seen as the only option for the firms if they wanted to expand in the same area that they were already operating in.

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[1224] NOU 1981: 47. Behovet for internasjonalisering av norsk næringsliv. Oslo, Universitetsforlage
[1225] Ibid.
[1226] Hamilton, L. & Webster, P. 2015. *The international business environment*, Oxford University Press, USA.
[1227] Benito, G. R., Larimo, J., Narula, R., & Pedersen, T. 2002. Multinational enterprises from small economies: internationalization patterns of large companies from Denmark, Finland, and Norway. *International studies of management & Organization*, 32(1), 57-78.

All three firms in this research had been involved in export before they first invested abroad. Increased internationalisation was also an aim for all three firms, although less so for Elkem-Spigerverket. In its company magazine, Norcem explained that, "It has become one of our long-term goals to use the strong reputation we have gained as a result of our know-how, our technology, and our competent people on different projects several places around the world".[1228] Dyno also argued that markets outside of Norway were key to its aims for the future, because, "The expansion possibilities in the Norwegian market are limited both for the chemical and the explosive sectors […]".[1229] For both of these firms, internationalisation was seen as necessary due to the limited expansion possibilities on the Norwegian market. Christiania Spigerverk also believed it had gained the dominant market share in Norway for most of its products. Its primary home market competitor, Jernverket, had political and financial support from the government. Jernverket had been established in an attempt to make Norway less dependent on the international steel market, and was also viewed as a part of Norway's regional policies due to its placement in the north in the country.[1230] Spigerverket was therefore not in a position where it could take further market share from Jernverket. An expansion would therefore have to come through either new markets or new products. In addition, Spigerverket saw the financial situation in Norway as increasingly challenging for industrial firms, which made it even more important for them to invest abroad. It argued that,

> *As a result of the political-economic climate in Norway in the last few years, the industrial companies have been given a steadily increasing economic burden. […] it can therefore be of economic importance for our group to establish production activities in other countries that are behind us in this development.*[1231]

[1228] Heiberg, G. 1976 "Internasjonalisering" *Nytt i Norcem:* 3-76.
[1229] 1973. Adm. direktørs redegjørelse på generalforsamlingen onsdag 9. mai 1973. *Dyno: Styrende organ etter nøkkel nr 1. 110.4-9433.*
[1230] NOU 1981:81. Stålutredningen: den norske stålindustris konkurransesituasjon. Oslo, Universitetsforlaget: 41.
[1231] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Elkems historiske arkiv: ELK 0001 M001.*

Norwegian politics was also given as one of the reasons Norcem wanted to invest abroad. The Norwegian government controlled cement prices and they set export limitations for cement. FDIs could hence provide a larger profit margin than could be achieved selling cement only in Norway. Investment in equipment for cement production was also considered to be too high for a product limited to the relatively small and price-regulated Norwegian market.[1232] Dyno also argued that high investment costs could not be justified for the small home market, stating that, "[…] investments often become so large that the Norwegian market is too small to make the investments economically viable and it becomes necessary to gain grounds on foreign markets".[1233]

The three firms were all Norwegian manufacturing firms with a high focus on the know-how regarding the production of their specific products. Their belief in the value of their production knowledge was given as a reason by all three firms for expecting that their investments in FDIs would be successful. Elkem-Spigerverket believed it possessed superior know-how regarding how to run a mini steel mill and produce reinforcement steel: "We have the technical know-how and expertise in regard to producing reinforcement steel, which is at least on the same level as other steel producers."[1234] When interviewed about the investment, Lundgaard argued that Spigerverket's mini steel mill had been, "Perhaps one of the most effective plants that have been of the mini plant type".[1235] This know-how was one of the main reasons the company sought to expand abroad. Likewise, Norcem's know-how in relation to cement production and management of cement factories was one of the main reasons the company became involved in several of its investments abroad. For example, Norcem's investment in Raknor lightweight concrete factory in Ras al-Khaimah began with the company's involvement in the management of a cement factory in the country.[1236] As this thesis has shown, in the mid-1970s, the sale of general knowledge,

[1232] Grøtter. 1970 "Vi må gjøre vår industri så interessant for nordmenn at styringsretten forblir norsk", *Nytt i Norcem*: 4-70.
[1233] 1972. Etableringer i utlandet. Dyno: Styrende organ etter nøkkel nr 36, 114 Styret.
[1234] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Elkems historiske arkiv: ELK 0001 M001.*
[1235] Lundgaard, Interview with Lundgaard and Ismar, August 2015.
[1236] 1974 "Til det første møtet med «tusen og en natt»", *Nytt i Norcem:* 4-74.

consulting, know-how, and management and operational knowledge was declared as one of Norcem's aims.[1237] For Dyno, the contribution of know-how was also significant in all of their investment. It was the company's primary contribution to the joint venture in West Germany in 1966/1967, and Dyno was also the contributor of know-how in the investments in Finland and Denmark. Revenue from know-how was a source of profit in the joint ventures. The know-how was developed in Norway and exported abroad as a part of the companies' FDIs.[1238] Export of know-how was also seen as increasingly important by the Norwegian government by the later years of the 1970s.[1239] For all three firms, their knowledge and production abilities were an important aspect of their investments; it also ensured that the Norwegian firms did not have to be concerned about access to know-how and technology, which has been identified by some researchers as one of the risks associated with joint ventures.[1240] Being the contributor of know-how in the joint ventures thus protected the firms against this particular risk.

The Norwegian home market and the three firms' positions there had an impact on why the firms wanted to invest abroad. Elimination of competition on the home market was evidently one of the major factors that affected the firms' investment decisions. All three firms went through mergers in the 1960s and 1970s, and all three grew into some of the largest firms in Norway. It is less likely that the firms would have invested abroad if they had not held a secure position on their home market. This background is something the three firms had in common, and might help to explain why the firms were relatively early to undertake FDIs compared to other Norwegian firms. The size of the Norwegian market, together with the political and financial situation in Norway, was also a factor influencing the firms' investment decisions. All three firms felt that there were limited expansion opportunities on the Norwegian market, and international expansion was seen as a natural development. Both Norcem and Dyno also judged that investments in production equipment would not be profitable if they were limited to

[1237] 1974 "Norcem går sterkere inn for eksport av Know how", *Nytt i Norcem:* 4-74.
[1238] 1973. Adm. direktørs redegjørelse på generalforsamlingen onsdag 9. mai 1973. *Dyno: Styrende organ etter nøkkel 1. 110.4-9433.*
[1239] St.prp.nr 88 (1977-1978). Om tiltak med sikte på å fremme norsk eksport.
[1240] Parry, T. G. 1973. The international firm and national economic policy: A survey of some issues. *The Economic Journal,* 83**,** 1201-1221.

the small Norwegian market. For Norcem and Elkem-Spigerverket, the Norwegian political and financial environment was also a factor influencing their investment decisions. It is clear that there were similarities between the three firms in regard to both their position on the Norwegian market and their view of their future possibilities there. This contributed to why the firms wanted to invest abroad, and what they expected to achieve through the investment.

## 8.4 Risk assessment and risk management

Risk management is the process by which risk is defined[1241] and methodologically addressed.[1242] One of the first steps in a risk management process is to identify and assess relevant risks. This is something all three firms did before they invested abroad, though to varying degrees. The section will compare the three firms' decisions, risk assessment, and risk evaluation; it will then investigate, compare, and explain the differences in the three firms' risk assessment and risk evaluation processes. This section will also contribute to explaining why the firms decided to invest abroad, and how risk affected their decisions.

Research and risk assessment was a part of all three firms' preparations in advance of their investments. All three firms conducted research on the market, and on the potential risks involved with the investment. Norcem and Dyno both focused on risks that they could prepare mitigation plans for, while Elkem-Spigerverket was primarily concerned with the quality of production. The impact of the research results was different in all investments, but all three firms considered themselves to be well prepared for the investment and the accompanying risks. For instance, Lundgaard from Elkem-Spigerverket argued, "We felt we had considered the risks that were there,"[1243] and Heiberg from Norcem reported that he felt the company was "thorough" when evaluating and assessing the risks before the investment decision was taken.[1244] For

[1241] Jaeger, C. C., Webler, T., Rosa, E. A. & Renn, O. 2013. *Risk, uncertainty and rational action*, Routledge.
[1242] IRM 2002. A Risk Management Standard.
[1243] Lundgaard, Interview with Lundgaard and Ismar, August 2015.
[1244] Interview with Heiberg, August 2015.

the FDI in Ras al-Khaimah, Norcem had already been involved with the cement factory through management contracts before investing; this provided the company with knowledge about operating in the country. This was used as a risk-management strategy, according to Heiberg, who said, "We did not go in with money first, we went in first to get a feeling".[1245] This way, Norcem could experience and learn about the country before making a financial commitment. Similarly, several of the investments made by the three firms were in countries where they had previous experience from export. The exceptions to this were Norcem's investment in the Philippines, where it was the first Norwegian firm to invest, and, to an extent, Dyno's investment in West Germany. In both cases, the companies chose to cooperate with a local partner in order to offset the lack of experience.

Out of the three firms and their various respective investments, it was seemingly Christiania Spigerverk's investment in England where risk assessment and evaluation had the least impact on the investment. Risk management in Spigerverket's, and later Elkem-Spigerverket's, investment does not seem to have played a significant role in the investment decision. Spigerverket believed it had a competitive advantage through its experience from the mini steel mill in Norway;[1246] it also believed that the investment would be profitable, even when various issues, such as possible overproduction steel in the future, were highlighted.[1247] Further, there is no evidence of the firm conducting appropriate research on competition, and thus the company was surprised by and not prepared for the increased popularity of mini steel mills.[1248] Elkem-Spigerverket's decision to continue with the investment because of the resources it had invested, aligns with what Nutt describes as 'premature commitment'.[1249] ES had decided it wanted to invest, and did not waver from this decision even when problems arose; moreover, it also continued and increased its investment, even when it was providing unprofitable.

[1245] Interview with Heiberg, August 2015.
[1246] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Elkems historiske arkiv: ELK 0001 M001*.
[1247] 1971. Mini Steel works. Working Report on the Prope study. *Ibid.*
[1248] Interview with Lundgaard and Ismar, August 2015.
[1249] Nutt, P. 2002. Why decisions fail: Avoiding the blunders and traps that lead to debacles, Berrett-Koehler Publishers.

However, although risk assessment and risk evaluation seem to have played less of a role, they were still a feature of ES's FDI decision-making. For instance, the decision to invest in England rather than in the USA was based on a risk evaluation.[1250] As the chapter on Elkem-Spigerverket showed, the UK was preferred due to Spigerverket's experience in and knowledge about the country. In this regard, ES followed Johanson and Vahlne's internationalisation process theory, according to which the first FDIs are made in culturally close countries in order to avoid risks.[1251] Grubernes before merging into Dyno, and Elkem-Spigerverket are the only firms that followed this internationalisation theory. Grubernes invested in England before the merger, while Dyno made its first investment in the culturally close West Germany, but then moved on to Singapore, before again investing in culturally close countries. Norcem never invested in Europe, instead selecting countries that were both geographically and culturally distant to Norway. For Dyno and Norcem, the locations of their investments were based on taking opportunities and retaining a share of distant markets. Their investments were also connected to their export and networks, rather than being based on cultural closeness and the risk-mitigation strategies promoted in the Uppsala Internationalisation theory. These findings fit with Benito and Gripsrud's research on Norwegian firms' investments and the internationalisation process theory from 1992,[1252] which found that the Uppsala theory cannot adequately explain the internationalisation of a large number of Norwegian manufacturing firms.

The research undertaken by Dyno in advance of its FDIs focused on the size of the potential market and the implications this could have for the investment. Compared to Elkem-Spigerverket's investment in England, Dyno's investments seem to have been more thoroughly researched in advance. This was especially the case for the investment in Singapore, where a feasibility study was first carried out and the findings

[1250] Interview with Lundgaard and Ismar, August 2015.
[1251] Johanson, J. & Vahlne, J.-E. 1977. The internationalization process of the firm-a model of knowledge development and increasing foreign market commitments. *Journal of international business studies***,** 23-32.
[1252] Benito, G. R. & Gripsrud, G. 1992. The expansion of foreign direct investments: discrete rational location choices or a cultural learning process? *Journal of International Business Studies***,** 461-476.

discussed with local consulting firms.[1253] This was also the case for several of the other investments Dyno considered. However, the investment in West Germany in 1967 is an exception; there is no evidence of research having been conducted on the market, the competition, or on other potential risks in relation to this investment. However, NSI/Dyno did set criteria stipulating the grounds on which it could withdraw, and was thus prepared for a potential failure.[1254] Elkem, on the other hand, was met with harsh criticism from the local government when it decided to withdraw from its investment, and had developed no plans for this in advance. In regard to Grubernes' investment in plastic sprayers in England, the market, local and foreign competitors, and the impact of EEC membership on the market were all factors included in the preparatory research.[1255] The investment in Singapore was the best prepared-for and most researched of Dyno's investments; this was most likely due to NSI's former failed investment, the distance to Singapore, and the fact that it was a green field investment.

Research on risk and FDI has primarily focused on the risks involved in the investment itself. However, for Dyno, and partly for Norcem, the risk of not investing also played a role in the risk assessment and investment decision. One of the main arguments in support of Dyno's investment in Singapore was that, "If our company does not establish local production, we must run the risk of losing our present position".[1256] It was likewise argued in regard to the Finland investment that it was, "probably the last possibility for keeping an interesting share of adhesives deliveries to Finland".[1257] Thus, without the FDIs, Dyno risked losing market share that it had established through export, due to increased competition, local production, and changing preferences in the plywood industry.[1258] Out of the three firms, it was predominantly Dyno that argued investments were necessary in order to retain existing market share, but Norcem presented similar arguments in regard to its investments in the Philippines

[1253] 1969. Styremøte 29.8 -Lim-og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr 32. 114 Styret.*
[1254] 1966. Protokoll for styremøtet 30. august 1966. *Dyno: Styrende organ etter nøkkel nr. 31, 114.*
[1255] 1970. Fra. Cooper, Pegler & Co. Ltd. -Salg. *Dyno: Grubernes Sprængstoffabriker A/S. Bilag til styreprotokoller 1969-1970 nr. 3/24, 150.212:114.31*.
[1256] 1969. Styremøte 5. 6. Lim- og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr. 32. 114*
[1257] 1971. Formalin- og Limfabrikk i Finland. *Dyno: Styrende organ etter nøkkel nr 34, 114 Styret.*
[1258] 1969. Styremøte 5. 6. Lim- og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr. 32. 114*

and Liberia. Norcem argued that the FDI in the Philippines was necessary for the survival of Fjord Plast boat production because "[…] large transport costs have proven it impossible to deliver the smaller boats from Fjord to this market".[1259] In addition, the investment in Liberia was intended to ensure deliveries of clinker from Norway.[1260] The risk of not investing and potentially losing existing market share was thus clearly an important aspect of these companies' risk assessment and their investment decisions.

In the majority of the other investments, the decision was taken to increase the firms' involvement in an area, or to take advantage of a specific opportunity. In the joint venture in Indonesia between Dyno and Mr Bleummers, the potential benefits were considered to outweigh the potential risks involved; "[…] we consider there to be some risk associated with entering into a partnership with him, but this is not decisive for us".[1261] Similar arguments were also put forth in support of several of Norcem's investments. Its first investment, to Ghana, was foremost about gaining the contract for export of clinker to Ghana from Norway, rather than making a profit from the mill itself. In Ras al-Khaimah, Norcem took advantage of the opportunity it had created through its involvement with an existing cement factory in the country. For Elkem-Spigerverket, it invested in England in order to pursue what it saw as an opportunity, based on both its own knowledge and the nature of the steel market in the UK at the time.[1262] In all those cases, the investment, and thereby the risk, was considered and the decision made according to option B from ISO's risk management standard: "Taking or increasing the risk in order to pursue an opportunity".[1263]

As this shows, the risks involved in the investments were evidently researched and assessed before the companies made their decisions. Boddewyn argues that, often, lack of time, lack of finances, and organisational constraints limit the number of alternatives

[1259] 1975 "Fjord's plast etablering på Filippinene et faktum", *Nytt i Norcem:* 2/3-75.
[1260] 1977 "Klinkereksport sikret ved kjøp av cement-mølle", *Nytt i Norcem:* 2-77.
[1261] 1972. Limfabrikk - Indonesia. Dyno: Styrende organ etter nøkkel nr 36. 114 Styret.
[1262] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Elkems historiske arkiv: ELK 0001 M001.*
[1263] Purdy, G. 2010.

that are considered.[1264] In the three firms studied in this research, there are clear differences in regard to what was and was not included in the preparatory research for their investments. For instance, Elkem-Spigerverket chose to focus primarily on the technical aspects of the investment. The company was thus taken by surprise by the increased popularity of mini steel mills and the subsequent steel crisis. Dyno, on the other hand, conducted more research before investing; this was particularly the case for its investment in Singapore, but less so for their first investment in West Germany. The risk of not investing also affected how the three firms viewed and assessed the investments. Dyno's investments in Singapore, Finland, and Denmark, and Norcem's investments in Liberia and the Philippines, were all intended to secure existing market shares. This affected the risk assessment, as not investing was also seen to carry risks. A majority of the other investments were made in order to take advantage of an opportunity and to increase the company's involvement in an area. All three firms had investments of this type. The table below shows how the three firms viewed and assessed the risks involved with their respective investments.

[1264] Boddewyn, J. J. 1983. Foreign and domestic divestment and investment decisions: like or unlike?. *Journal of International Business Studies*, 14(3), 23-35.

**Table 15:** Risk as viewed by the three firms.

| | **NSI/Grubernes/Dyno** | | | | **Elkem-Spigerverket** | | **Norcem** | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Germany 1966/1967 | Singapore 1970 | England 1971 | Denmark /Finland 1972 | England 1973 | Further investments | Ghana 1967 | Ras al-Khaimah 1977 | Philippines 1976 | Liberia 1977 |
| **Risk appetite** | Moderately risk- willing | | | | Least risk-willing | | The most risk willing. | | | |
| **Reason for investing, from a risk perspective** | | Risk of losing market share in the region | Risk of losing the sales agreement if another company bought the plastic producers | Risk of losing market share in Finland and Denmark | | Further involvement was seen as a potential way to recover from the issues | | | To decrease production and sales prices with the aim of saving the firm | Risk of losing lucrative delivery of clinker agreement |
| **Knowledge of country before investment** | Little previous experience, but joint venture with local partner | Previous experience with export of industrial adhesives | Previous experience selling to the acquired company | Long experience from export to the two countries | Experience from the sales company and export | | Experience from export | Sale of know-how and management before investing | No previous experience, but joint venture with a local partner | Experience from export |
| **Risk emphasised** | | Potential political risks associated with investing in Singapore. | | Joint ownership with the participant in Finland seen as a risk the company was willing to take. | The labour unions in the UK mentioned as a potential risk that was prepared for in advance. | | Political risks<br><br>Payment issues | Political risk | Unknown market | Political risk |

## 8.5 Risk-management strategies

Risk was a consideration in all three firms' investments, and all three firms applied or considered applying different strategies to manage and mitigate those risks. Environmental risks were the main risk associated with investments outside of Europe, and entry mode was the most used strategy to mitigate risks. This section will discuss risk-management strategies related to environmental risks and entry mode. It will also investigate why and how the three firms chose to manage risks, and which risk-management strategies they chose to implement. The section will also discuss how the firms' risk-management strategies compare with modern risk-management theories, and will investigate to what extent modern risk management was practised by the three firms studied in this thesis.

In some of the potential investments that were discussed by the three firms, the risks were deemed to be too high compared to what the firms expected to gain from the investment. In those cases, the firms decided to avoid the risk by not investing. This fits with option A from the ISO risk management standard: "Avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk".[1265] Examples of this include Dyno's discussion about acquiring a firm in Sweden. The company decided not to go through with this investment because the cost was seen as too high compared to what the firm was worth.[1266] Norcem also decided against direct investments in cement factories in the USA, and instead relied on export. The reason given for this was that the risks and investment costs involved were too high and could thus have a significant impact on the firm as a whole if the investment was not a success.[1267] The size of the other investments varied, but none were large enough to pose a threat to the whole firm if they failed. Deciding against investing was thus a risk-mitigation strategy used by two firms that otherwise were relatively risk-willing. This shows that there was a limit to how large a risk these firms were willing to take, and that avoidance was used as a risk-mitigation strategy. This fits with March and

[1265] Purdy, G. 2010.
[1266] 1967. Handels- og Fabriksaktiebolaget Petunia, Styremøte 4.9. *Dyno: Styrende organ etter nøkkel nr. 31, 114.*
[1267] Interview with Heiberg, August 2015.

Shapira's findings, where managers perceived risk as something that should be avoided when the survival of the firm is under threat.[1268]

A risk-mitigation strategy that was mentioned by all three firms was to ensure high and consistent quality of their products. This helped the firms to remain in the country or market they were investing in, it helped give them a competitive advantage and it helped to create new international opportunities. However, Norwegian firms were criticised by the Norwegian government for focusing too heavily on the quality of products alone, and too little on marketing.[1269] This was likely true for the three firms in this study. The Japanese adhesives factory in Singapore was known for its low-quality product and a lack of technical know-how, which made it crucial for Dyno to focus on the quality of the industrial adhesives.[1270] Halvorsen from Dyno argued, "We had to prove with price, quality, and regular deliveries that we were capable".[1271] Likewise, Heiberg from Norcem explained, "We went into the markets where it was important to show that we know what we are doing, to show that we are reliable, we need to gain trust, we must be able to deliver what we promise".[1272] Heiberg further argued that this was part of the Scandinavian mentality, and that maintaining a high and consistent quality was important because Norway was a small country with small firms and limited resources to compete with on the international market.[1273]

The three firms, and Norway in general, outside of the shipping industry, were relatively unknown and had a limited resource base from which they could compete internationally. Halvorsen from Dyno argued,

> *We did not have the trust that an industrialised country, who can document results in several places in the world, did […] So, we had to rely on ourselves, the ability to speak and the ability to send good engineers out when we first got started.*[1274]

[1268] March, J. G., & Shapira, Z. 1987.
[1269] NOU 1978: 53. *Eksportfremmende tiltak*, Oslo, Universitetsforlag.
[1270] 1969. Vedr: Søknad om kredittforsikring for fabrikk i Singapore for fremstilling av formalin og flytende lim. *Direktoratet for utviklingshjelp (NORAD): Da-L0799.*
[1271] Interview with Halvorsen, August 2015
[1272] Interview with Heiberg, August 2015
[1273] Ibid.
[1274] Interview with Halvorsen, August 2015

Similarly, Norcem explained, "We strengthened our position best by being serious and orderly in our business practices".[1275] Ensuring that they could compete on quality, providing secure deliveries, and establishing trust was a way that the Norwegian companies could limit competition, and thus risk, from the much larger and better-known corporations. For Norcem, this was especially important in the politically unstable countries the company invested in, as it helped provide a competitive advantage over firms that were able to bribe more extensively. The quality of the production was also important for Elkem-Spigerverket, and this importance only increased during the steel crisis. The company invested significant resources into ensuring its steel was high quality, and quality production became essential to remain competitive during the steel crisis.[1276]

### 8.5.1 Environmental and political risk

Based on the findings of the previous chapters on the individual firms, the most significant risk associated with the investments outside of Europe were environmental and political risks. Included in this category of risk are political instability, government policy instability, and social risk.[1277] Norcem was the only company that had to deal with environmental risk throughout its investments, while for Dyno this was mainly a concern in advance of the investments. Political risks were a crucial consideration in regard to Norcem's investments in Ghana and Liberia, but also in its investments in the Philippines and in Ras al-Khaimah. It was also a consideration for Dyno's investment in Singapore, where it was stated that, "There are some political risks attached to the project […]".[1278] Environmental uncertainties were also a concern in relation to Dyno's later investment in Indonesia, although risk management was not a key consideration in this investment due to its small size. Some research on political risk had been conducted before the firms invested abroad, but it was a relatively new research field until the 1980s. Most research on political risk in the 1960s and the

[1275] 1969 "Norcem eksporterer i år 1,1 million tonn cement", *Nytt i Norcem:* 1-69.
[1276] 1981. Johnson & Nephew (Mill Street) Ltd. *Steel Times*.
[1277] Miller, K. D. 1992.
[1278] 1969. Styremøte 5. 6. Lim- og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr. 32. 114*

1970s was focused on government interference with the operation of the business.[1279] Political risk was clearly a concept that all three firms were aware of, and were concerned about, before they invested abroad in the 1960s and 1970s. Political risks are referenced several times in the data material, and the Guarantee Institute for Export Credits (GIEK) provided a separate insurance to cover political risk in developing countries. The term 'political risk' was used by the firms to describe both political instability and government policy changes, such as confiscation of the subsidiaries and coup d'états. The term 'environmental risk' was not used to describe this type of risk, and social uncertainties were not included within the concept of political risk used by the firms and the GIEK.

Several strategies were implemented to manage or mitigate political risks. One of those strategies, the selection of less risk-filled countries, was used both to avoid political risk and to limit risk in general. For instance, Dyno chose to establish an FDI in Singapore over the nearby countries as a part of its risk-management strategy, where Singapore was preferred over other countries because it was seen as having a more stable economic and political environment. Dyno also believed that the managers of the plywood factories in Singapore, who would be their primary customers, were more dynamic and export-oriented than their counterparts in Malaysia and Thailand.[1280] Further, Norway and Singapore already had an existing tax agreement, and the laws in Singapore were similar to British business laws.[1281] Dyno's knowledge about the politics and the investment environment in Singapore was greater than it was for any of the other nearby countries, and this further contributed to the firm considering this a less risk-filled choice. Although Singapore was seen as the least risky location, Dyno was prepared to establish production in the nearby countries if restrictions were implemented on export from Singapore.[1282] Consequently, Dyno was prepared for some of the political risks it could counter by investing in Singapore. Norcem, which also had to consider political risks in several of their investments, did not select

[1279] Kobrin, S. J. 1979. Political risk: A review and reconsideration. *Journal of International Business Studies***,** 67-80.
[1280] 1969. Styremøte 5. 6. Lim- og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr. 32. 114*
[1281] Interview with Halvorsen, August 2015.
[1282] 1969/70 "Dyno Industrier Pte.Limited" *Spinas Nytt: Winter.* NTNU Universitetsbibliotek.

countries to invest in based on how much or little political risk was involved. Norcem did not use avoidance or selection of less risk-filled countries as a risk-management strategy. However, it did operate in environments in which coup d'états were relatively frequent; this created environmental risks, but it also brought certain benefits, such as monopoly of cement deliveries.

The selection of specific countries was also used to manage more general risks. For instance, Christiania Spigerverk chose to invest in England over the USA as a part of a risk-management strategy. It knew the market in England better, and considered this to be the safer choice. Dyno's investments in Denmark and Finland were also to countries it knew well from previous experience. Norcem does not seem to have chosen countries to invest in based on their political stability or its knowledge about the country; thus, in Norcem, this strategy was not used to manage risks. For example, Norcem chose to be the first Norwegian firm to invest in the Philippines, but chose not to invest in the USA, a country it knew well. In addition, both Ghana and Liberia were politically unstable countries. Norcem's selection of countries to invest in was driven by the opportunities it perceived or acquired, rather than being used as a risk-management strategy. However, the selection of the Free Trade Zone area in the Philippines over other areas enabled Norcem to better protect itself against political risks. Thus, preference for the investment area, rather than country, was in this case used as a risk-management strategy.

Financial advantages also affected investment location decisions. For both Norcem's investment in the Philippines and Dyno's investment in Singapore, the financial advantages that the location provided had an observable impact. The Free Trade Zone in the Philippines was specifically created to draw foreign investors to the country, and came with financial advantages, such as tax exemptions.[1283] The 'Pioneer status' in Singapore was created for the same reason, and it gave Dyno full tax exemption for the first five years of the investment.[1284] Elkem-Spigerverket, on the other hand,

[1283] 1972. PRESIDENTIAL DECREE No. 66 November 20, 1972. Creating the export processing zone authority and revising republic act no. 5490.
[1284] 1969. Styremøte 5. 6. Lim- og formalinfabrikk i Singapore. *Dyno: Styrende organ etter nøkkel nr. 32. 114*

decided that the financial benefits of investing in a development area in the United Kingdom did not outweigh the disadvantages, in the long term; it therefore chose to invest in Manchester, without a development grant, instead of in Pontypool as had been considered.[1285]

One of the other significant risk-management strategies that was used specifically to mitigate political risk was insurance from the Norwegian Guarantee Institute for Export Credits (GIEK). Insurance is one of the oldest known risk-mitigation strategies, and is one of the strategies described in Knight's book from 1921.[1286] Insurance is a risk-management strategy that was known by the three firms in the 1960s and 1970s. All three firms had previous experience with the GIEK's guarantee scheme, as they had used it to insure their exports. However, whilst Elkem-Spigerverket had experience with the GIEK, its guarantees were not used for the investment in England. Likewise, Dyno did not use the guarantees for its investment in Denmark and Finland. This was primarily because guarantees were only granted to investments in developing countries. They also chose not to use guarantees and insurance because, according to Lundgaard from Elkem, "We felt that we had enough money as it was, and solidity that was good enough".[1287]

For Norcem and Dyno, the guarantees from the GIEK helped to insure investments against political risks such as war and confiscations for a relatively small amount of money. The guarantees against political risks were used for the FDIs that were outside of Europe. Kobrin research from 1979 found that the typical response to political risk was avoidance.[1288] This was not the case for Dyno, and especially not for Norcem. The guarantees from the GIEK against political risk in regard to their investment could have contributed to this, as 90 per cent of both of their investments was guaranteed against political risk at the time of the investment.[1289] This fits with option E in the

[1285] 1972. Foreløbig innstilling. Stål- og valseverk for armeringsstål i Storbritannia. *Elkems historiske arkiv: ELK 0001 M001*
[1286] Knight, F. H. 2012. *Risk, uncertainty and profit*, Courier Corporation.
[1287] Lundgaard, Interview with Lundgaard and Ismar, August 2015.
[1288] Kobrin, S. J. 1979.
[1289] St. prp. Nr. 66 (1964-1965). Om Garanti-Instituttet for Eksportkreditts virksomhet i 1964.

ISO risk management standard, 'Changing the consequences'[1290], since the consequences of political risk were, using this strategy, limited to only a small financial loss. Norcem used the insurance for several of its investments, and their applications for guarantees were not subject to much debate. Dyno's investment in Singapore, on the other hand, did generate some debate, due to their application involving insurance on a loan from the bank participating in the investment.[1291] Dyno never had cause to use the guarantees, whereas Norcem made a claim when faced with payment issues in Ghana. The insurance was used to help mitigate the risks involved with investing in politically unstable countries, and, for Dyno, the guarantees were set as a condition before it would commence with the FDI in Singapore.[1292] During the oral history interviews, the guarantees were remembered as being less important than is stated in the archives.[1293] This might be related to how little use for the guarantees the firms had, as neither experienced any political risk with major implications where the guarantees would have made a significant difference.

As has been shown in this thesis, several different strategies were implemented to deal with political risks. The strategies used by the firms are strategies often presented in modern research on risk management and FDIs. However, what seems to have been the most important risk-management strategy implemented against political risk was maintaining personal relationships and trust. This helped to ensure the firms' position in the relevant country, and it granted access to new investment opportunities. Networks and trust can be used to mitigate opportunistic behaviour of partners, and can also promote and increase information transfer.[1294] Forming relationships with government officials in particular can provide useful information about governmental

[1290] Purdy, G. 2010.
[1291] 1970. Forslag om endring av §12. *Garantiinstiuttet for eksportkreditt: Vedtekter for Utviklingslandene: Da-005.*
[1292] 1969. Styremøte 22.12 - Singaporeprosjektet. Dyno: Styrende organ etter nøkkel 32. 114 styret.
[1293] Interview with Halvorsen, Agust 2015. And, interview with Heiberg, August 2015.
[1294] Rousseau, D. M., et al. 1998. Not so different after all: A cross-discipline view of trust. *Academy of management review*, 23.3: 393-404.

processes.[1295] This strategy was emphasised by Norcem and, although to a lesser degree, also by Dyno. Halvorsen, the former manager of Dyno, said,

> *In general, you made friends - that is what you did. Friends whom you could trust and, if it went wrong, that one could talk to. Thus, as part of the internationalisation process this is, I think, a main point. Especially for a Norwegian firm with little capital and a small business, that only has to offer specialities within adhesives that one can buy from elsewhere.*[1296]

One of the reasons this was seen as a useful risk-management strategy for Dyno was due to the firm's size, and also because it was Norwegian. From an international perspective, both Norcem and Dyno were small firms with limited resources. Maintaining a close relationship with the people it invested with and the leadership in the country it was invested in, was therefore an important strategy. Norcem, for example, did not have the resources required to bribe at the same scale as larger firms. Close cooperation and friendships with government officials were therefore used as a strategy to retain the monopolistic position it had gained in Ghana and Liberia against financially stronger competitors. Norcem also met with the leadership in the Philippines to discuss its investment before committing to invest in the country.[1297] For Norcem, this risk-mitigation strategy was also useful in its investment in Ras al-Khaimah, where its relationship with the government in relation to the management of the cement factory contributed to making its first FDI in the country in 1977 a possibility. The previous involvement in the country also ensured that Norcem knew its investment partner before becoming financially involved. Heiberg argued, "We found that we could rely on them and they found that they could rely on us, which made it easier to say 'yes, let us invest together'".[1298] Dyno similarly used the strategy of building relationships and networks in Singapore, maintaining a close relationship with the state-owned Development Bank of Singapore, which was useful in dealing with Mr Leong, the third participant in the joint venture in Singapore.[1299]

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[1295] Doh, J. P., Lawton, T. C., & Rajwani, T. 2012. Advancing nonmarket strategy research: Institutional perspectives in a changing world. *The Academy of Management Perspectives*, 26(3), 22-39.
[1296] Interview with Halvorsen, August 2015.
[1297] Interview with Heiberg, August 2015.
[1298] Ibid.
[1299] Interview with Halvorsen, August 2015.

Relying on networks, friendships and trust is a complex risk-management strategy. This was particularly the case for Norcem in Ghana, Liberia, and Ras al-Khaimah, as it is difficult to maintain a friendship with the political leadership in a country where this often changes. It was also crucial, in the case of changing governments, not to be too closely associated with the former government, so as to be able to build a relationship with the new government without being linked with the former.[1300] The complicated nature of this risk-mitigation strategy is also demonstrated in the emphasis Norcem placed on keeping their application for guarantees against political risks in Ras al-Khaimah a secret: "[…] it will be very unfortunate for both this project and later cooperation if it becomes known to him [the Sheikh, Norcem's investment partner] that we seek guarantee coverage for political risks".[1301] In this situation, it was judged that the application for insurance to cover against political risk could jeopardise the company's relationship with the Sheikh, and thereby weaken the position that Norcem had built up in the country.

Of the three firms studied in this research, Norcem was the company that had to deal with the most political risks. It also had to deal with non-market strategies related to corruption and bribery in several of the countries. The non-market environment is the social, political, legal, and cultural environment that constrains or promotes firm activity, and the firm's ability to influence this.[1302] This also meant that delivering high and consistent quality products was important, as well as maintaining a close relationship with the local investors and government. This was particularly the case in regard to the investments in the Middle East, on which, Heiberg said,

> *We experienced it in the Middle East where it is quite common, but where it was possible due to personal connections to say 'look, we cannot, we will not, we must not, this does not work, but we certainly want to continue, and do not listen to what the competitors say, let's think further than that', and so on.*[1303]

Norcem was the only one out of the three firms to mention bribery and corruption as factors it had to take account of, although this could be related to Norcem's practice

[1300] Interview with Heiberg, August 2015.
[1301] 1976. Søknad om investeringsgaranti. Garantiinstiuttet for eksportkreditt: Da L0021.
[1302] Doh, J. P., Lawton, T. C., & Rajwani, T. 2012.
[1303] Interview with Heiberg, August 2015.

of bribery being public knowledge.[1304] There are no mentions of bribery in Dyno's archives, and Halvorsen denied that this was a practice employed in its investments.[1305] The reason why only Norcem had to deal with corruption and bribery is therefore most likely due to the types of countries in which it invested. Political risks were not a major concern for Elkem-Spigerverket and its investments in England. However, the restrictions and implementation of quotas on the sale of steel as a result of the steel crisis did have implications for its investment. Likewise, the refusal of the Industrial Development Certificate affected its investment to such a degree that it had to review its location decision and undertake preliminary research again, for a new location. Hence, national policy in the investment country and policy changes had an impact on this investment. This was not something ES had prepared any mitigation plans for, and the refusal to grant the certificate seems to have taken the company by surprise. Norcem and Dyno did not appear to have had a specific strategy for how to deal with the political risks either, with the exception of Dyno's plan to invest in neighbouring countries if there were restrictions in Singapore. In accordance with the findings of Kobrin, political risk had some impact on the decisions the managers made in relation to FDI, but very little formal assessment of the impact of this type of risk was conducted.[1306]

Based on the above, it is evident that political risk was a known, and even an essential aspect of the firms' international investments, and environmental risk played a significant role in the firms' investments outside of Europe. Both Norcem and Dyno used guarantees from the GIEK to insure against political risk, and Dyno even established this as an essential requirement before commencing with the investment in Singapore. It is, however, possible that Norcem would have commenced with the investment regardless of the insurance. Thus, insurance via the GIEK was thus seen by Norcem as helpful, but not as a necessary strategy to mitigate political risks. The two companies also both highlighted the importance of a close relationship with the elites in the countries they invested in. In Norcem's case, bribery was a risk it could not ignore in both Ghana and Liberia. This issue was similarly managed by

[1304] Vanvik, G. I. A. H. 2007. Grå Sement - Svarte Penger. *Dagens Næringsliv Magasinet*.
[1305] Interview with Halvorsen, August 2015.
[1306] Kobrin, S. J. 1979.

maintaining close relationships with the leadership in the two countries, together with ensuring a high and consistent quality of production and making a social contribution to the countries. Thus, in general, it can be said that maintaining a high and consistent quality product and establishing a reputation as a firm that could be trusted was essential for the success of the firms in their investments.

### 8.5.2 Entry mode

The selection of entry mode and, with it, ownership structure is an essential aspect of risk management in FDIs. Choice of entry mode typically depends on how much risk the firm is willing to take in exchange for a greater degree of control.[1307] Shared ownership with one or several participants means the risk is shared, but also that each participant has less control over the investment.[1308] The ISO standard on risk management includes 'sharing the risk' as one option for approaching risk.[1309] In addition, shared ownership is also one of the suggestions put forth by the Federation of Norwegian Industries to avoid uncertainties. They said,

> *Part of the uncertainty that can be associated with establishments in another country can be eliminated if establishment takes place in cooperation with a partner in the establishing country, or in cooperation with suppliers, sellers, or buyers in this country.*[1310]

Majority ownership was the most common ownership structure amongst the Norwegian firms that had established FDIs by 1978.[1311]

All three firms considered sharing the risk with other participants as a risk management strategy, in almost all of their investments. A majority of the investments established by the three firms were joint ventures in which the other partner or partners were locals. This contributed to limiting the risks involved by sharing the risk with the other participants, but also by ensuring local knowledge about the country. Heiberg from

[1307] NOU 1981: 47. Behovet for internasjonalisering av norsk næringsliv, Oslo, Universitetsforlaget.
[1308] Anderson, E. & Gatifnon, H. 1986. Modes of foreign entry: A transaction cost analysis and propositions. *Journal of international business studies***,** 1-26.
[1309] Purdy, G. 2010.
[1310] 1971. Manus til forretnings- og bedriftslederen. *Norges industriforbund: 965.*
[1311] NOU 1981: 47. Behovet for internasjonalisering av norsk næringsliv, Oslo, Universitetsforlaget.

Norcem emphasised the importance of the ability to be flexible in regard to ownership: "We had no clear policy […], we had to be flexible depending on the political situation we found in the nations where we were".[1312] The only investments that were wholly owned were the two investments in the UK. Both Grubernes (Dyno) and Elkem-Spigerverket selected wholly owned over joint venture as their entry mode in the UK. This was the case for all Elkem-Spigerverket's investments in England, but a joint venture with both British Steel Corporation (BSC) and local buyers had been considered in the earlier planning phases. Grubernes chose to acquire the whole company in England primarily for tax reasons.[1313] Research by Benito on ownership structures used by Norwegian manufacturing firms found that firms that invested in politically unstable countries were more likely to select shared ownership.[1314] Both Norcem's and Dyno's investments in politically unstable countries were joint ventures, which thus aligns with Benito's findings from 1996.

The three firms were the majority owners in most of their investments; this ensured control over the investment. In three of Dyno's investments, the company had shared ownership equally with one or several other participants, while Norcem was the minority owner in two of its investments. In the investments where the Norwegian firms were the minority owner or ownership was shared equally, the Norwegian firm contributed know-how and management experience. The exception to this was Dyno's first investment in West Germany, where the local partner was responsible for management and sales, while Dyno provided the know-how. The table below shows the ownership structures used in the three firms' investments.

[1312] Interview Heiberg, August 2015
[1313] 1970. Cooper, Pegler & Co. Ltd from Ildal, Waaler & co. Dyno: Grubernes Sprængstoffabriker A/S. Bilag til styreprotokoller 1969-1970. Nr 3/24: 150.212:114.31.
[1314] Benito, G. R. 1996. Ownership structures of Norwegian foreign subsidiaries in manufacturing. *The International Trade Journal,* 10**,** 157-198.

**Table 16:** Ownership structure of the FDIs

| Company | Investment | Year | Ownership | Other participant |
|---|---|---|---|---|
| Dyno | Germany | 1967 | Joint venture | German company 50% |
| Dyno | Singapore | 1970 | Joint venture | Local investors 35% |
| Dyno | England | 1969 | Acquisition 100% | |
| Dyno | Denmark | 1972 | Joint venture | Consumers of adhesives 66% |
| Dyno | Finland | 1972 | Joint venture | Consumers of adhesives 50% |
| Norcem | Ghana | 1967 | Joint venture | Ghanaian State 85% |
| Norcem | Philippines | 1976 | Joint venture | Local investor 49% |
| Norcem | Ras al-Khaimah | 1977 | Joint venture | Sheikh Saqr bin Mohammed al-Qasimi 60% |
| Norcem | Liberia | 1977 | Joint venture | Liberian State 25% |
| Elkem-Spigerverket | England | 1975 | Wholly owned | |

One crucial aspect of how risk was managed within a shared ownership structure is through the selection of the other partner or partners. Dyno and Norcem used this strategy extensively, and Christiania Spigerverk considered it in England. Spigerverket originally wanted to partner with the British Steel Corporation (BSC) in its investment. The rationale was that this would help limit risks due to the corporation's position on the British steel market.[1315] The company also considered having consumers of steel as a joint partner in the steel mill, as this would ensure guaranteed sales.[1316] Spigerverket's recommendations to the board stated that, "With said participation we have already secured an allocation of approximately 100,000 tons of reinforcement steel […]".[1317] This ownership strategy was never realised by Elkem-Spigerverket, however, Dyno implemented a similar strategy in its investments in Denmark and Finland. The other partners in the industrial adhesives factories in the two countries were the consumers of the product, and thus some of the risks were mitigated through

[1315] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Elkems historiske arkiv: ELK 0001 M001.*
[1316] 1972. Foreløbig innstilling. Stål- og valseverk for armeringsstål i Storbritannia. *Ibid.*
[1317] 1971. Innstilling til styret vedr. stål- og valseverk for armeringsstål i England. *Ibid.*

ensuring sales before the factory had begun operating. On this strategy, Halvorsen stated, "It reduced our risk and our chances, but reduced our risk"[1318].

For Norcem, its partner in joint ventures was often the local government. Norcem used this strategy in several of its investments, with the aim of managing risks. According to James and Vaaler, this can function as an effective risk-management strategy, though this is foremost the case when the local government holds less than 50 per cent of the ownership, and it works best when the local government holds between 21-30 per cent of the equity.[1319] In Norcem's investments in both Ghana and Ras al-Khaimah, the government was the majority owner with an ownership share of 75 and 60 per cent respectively. Norcem's use of this strategy was thus not ideal, according to James and Vaaler's theory. However, Heiberg, the manager of Norcem, found the strategy useful, explaining that, "In Africa, we were partners with the government, I saw this as an advantage because they also had a responsibility in this, so if they broke us down, it would affect them as well […]".[1320] It was only in Norcem's investment in Liberia that the government held the minority share, with 25 per cent ownership. Norcem was the only one of the three firms to have the local government directly involved in an investment. Dyno had the state-regulated Development Bank of Singapore as a partner in its investment in Singapore, but in Dyno's other investment, the partners were other independent firms.

It is clear that the firms implemented several strategies with the aim of managing the risks involved in their foreign investments, and several of the strategies used are aligned with modern research on risk management in FDIs. As this research has shown, entry mode was one of the most actively used strategies by the three firms, both in their investments in Europe and the rest of the world. An important aspect of this was a focus on the other partner(s) in the joint ventures. Partners were specifically selected because they could contribute to limiting risks either through having local knowledge, through being a guaranteed purchaser in the future, or because they were

[1318] Interview with Halvorsen, August 2015.
[1319] James, B. E. & Vaaler, P. M. 2013. Minority rules: State ownership and foreign direct investment risk mitigation strategy.
[1320] Interview with Heiberg, August 2015.

the local government. Consequently, one of the most used and discussed risk strategies by all the three firms was sharing the risk with partners in joint ventures. Besides this, the two most used strategies to mitigate political risks were guarantees from the GIEK and maintaining a close relationship with the government and the cooperating partners.

**Table 17:** Risk-management strategies

| | **NSI/Grubernes/Dyno** | | | | **Elkem-Spigerverket** | **Norcem** | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Germany 1966/1967 | Singapore 1970 | England 1971 | Denmark /Finland 1972 | England 1973 | Ghana 1967 | Ras al-Khaimah 1977 | Philippines 1976 | Liberia 1977 |
| **Research done in advance of investment** | No evidence of proper research | Yes, including feasibility study | Research on competition and EEC impact | | Limited research conducted in advance | | | | |
| **Selection of country as risk-management strategy** | | Singapore seen as more stable | | | UK selected due to closeness and previous experience | | A country Norcem had experience with from management tasks | Invested in a "Free Trade Zone" to avoid risks | |
| **Ownership as risk-management strategy** | Joint venture with local knowledge | Joint venture, which granted Pioneer status | | Joint venture with purchaser of the adhesives | Joint venture considered | Joint venture with local government | Joint venture with the Sheik | Joint venture brought local knowledge | Joint venture with local government |
| **Network, relationships and trust** | | Friendship and trust emphasised as important | Former owners remained involved | | | Building of trust seen as important | Building of trust seen as important even before the investment | Building of trust seen as important | Building of trust seen as important |
| **Use of guarantees against political risk** | | Seen as important | | | | Guarantees ensured and used in Ghana | Yes | | Yes |

## 8.6 Risk management and FDI

*"The decision to establish production in other countries is especially demanding and risky".*[1321]

This research has shown that risk and risk management was a consideration in all three firms' foreign investment activities, even though they invested abroad before the majority of the scientific research on the topic had been conducted. The three firms also implemented various risk-management and mitigation strategies, such as selection of entry mode, selection of participants in the joint ventures, selection of countries, and guarantees against risks. Several of the options for managing risks that were listed in the ISO standard for risk management[1322] were utilised by the three firms. For instance, the firms chose to avoid risks by deciding not to start or continue with the investment, they took risks in order to pursue opportunities, and they shared risk with another party or parties.

In regard to the FDIs and the related risks, Elkem-Spigerverket stands out from the other two firms in many ways. First, it was a less risk-willing firm and it invested in a country that was close to Norway and a country that it knew well. In addition, ES did not secure insurance through the GIEK, as the other two firms did for some of their investments. It also established a wholly owned FDI and invested rapidly in the same country. Financially, ES's investments were also the largest. Norcem on the other hand, was a very risk-willing company; it invested in relatively unknown and politically unstable countries all over the world, wherever it saw an opportunity. Political risk therefore played a major role in their investment activities. Dyno can be positioned somewhere in between the two other firms in regard to willingness to take risks in its investments; the company invested in both developing and developed countries, within and outside of Europe.

[1321] NOU 1981: 47. *Behovet for internasjonalisering av norsk næringsliv*, Oslo, Universitetsforlaget. Vedlegg 2.
[1322] Purdy, G. 2010.

A majority of the investments made by the three firms in the 1960s and 1970s were successful, both financially and in establishing the firms in the relevant country or region. Several of the subsidiaries that were invested in or established still exist today, under new owners. Three of the investments can be identified as failures, due to the lack of profit and the firms' decision to divest after a few years' involvement, these are: Dyno's first investment in West Germany in 1966; Norcem's investment in the Philippines in 1976; and Elkem-Spigerverket's investment in the steel industry in England. Dyno withdrew from its investment in West Germany in 1971, only five years after production had started. The subsidiary had struggled financially for years, and Dyno suffered a financial loss.[1323] Norcem's investment in the plastic boat factory in the Philippines in 1976 also only lasted for a few years before the company decided to divest. The investment was not a large investment for Norcem, from a financial perspective, so the monetary loss was not critical for the survival of the firm. The investment, however, was not considered a success and the factory never reached its sales targets. A few years after it withdrew from the investment in the Philippines, Norcem also withdrew from the plastic boat production in Norway.[1324] Elkem-Spigerverket's investments in England were also not a financial success. Not only had the firm spent several years carrying out research before it could invested, but just 10 years after the factory opened the decision was made to withdraw.[1325] By then, the company's investment consisted of four different subsidiaries, and the decision to withdraw was met with harsh criticism.[1326]

In general, very few of the risk mitigation strategies that were implemented by the three firms in their FDIs were decided upon following a process whereby components of risk were defined and methodologically addressed. This was particularly the case for the investments that did not succeed. A relevant question is then if the firms would have executed their investments differently, made different decisions, or prepared more comprehensive mitigation plans if they had undertaken a full risk assessment and

[1323] 1971. Protokoll fra styremøtet 28.9.1971 i Norsk Sprængstofindustri A/S. *Dyno: Styrende organ etter nøkkel nr. 34. 114 styret.*
[1324] Interview with Heiberg, August 2017.
[1325] Kielland, K. 1985. Reply to Graham Stringer about the closedown of Manchester Steel. *Elkems historiske arkiv: ELK 0001 M001.*
[1326] Stringer, G. 1985. Letter about the closedown of Manchester Steel. *Ibid.*

selected a risk-management strategy before they invested. One of the primary issues in all of the failed investments appears to have been a lack of research in general, and in particular regarding the competition. There was a large increase in research carried out by Dyno from its first investment, in West Germany, to its second, in Singapore. If Dyno had carried out further research on the competition in West Germany, it might have been better prepared for the competition it met from the German companies. However, for Elkem-Spigerverket, it is not likely that further risk assessment, evaluation, and strategic planning would have had a significant impact. The steel crisis came as a surprise to most people at the time, and the expectations of a growing steel market in Europe had been high amongst many different operators before the crisis. More thorough research on the market would most likely not have highlighted the likelihood of a steel crisis. However, more thorough research on the potential competition might have enabled ES to be better prepared for the increasing popularity of the mini steel mill, which according to Karl Ismar and Erik Lundgaard, had been a surprise: "[…] it became extremely popular internationally to establish mini works. And it changed significantly the market situation and the competitive situation for us when we got started in Manchester".[1327] Several companies had been in the process of establishing mini steel mills in the UK at the time. One example of this was the large Bidston Steel Mill, which Elkem-Spigerverket later acquired,[1328] but there were also other examples.[1329] More research in advance might have helped ES be better prepared for the increased competition. The investment by ES could also potentially have been more successful if the firm had continued with the plan for a joint venture, which had been discussed in the earlier planning phases. This could have ensured the sale of some of the steel produced at the mill, and the mill would then potentially have been less affected by the steel crisis.

Some of the risks were assessed, planned for and mitigated in advance, but in several of the investments, risks were only addressed and problems were only solved when they arose. For example, Norcem experienced payment issues in Ghana, which it attempted to solve through focusing on delivering cement to other countries instead.

[1327] Interview with Lundgaard and Ismar, August 2015.
[1328] 1981. Bidston Steel Ltd. *Steel Times*.
[1329] 1974. HC Deb 08 July 1974 vol 876 cc330-1W: Steelworks.

The issue of changing governments in unstable environments was resolved by travelling to the countries to discuss and resolve problems and establish a relationship with the new government.[1330] Dyno had to solve issues with its former agent in Singapore, Mr Mok Ah Leong, when he developed a gambling problem, which is also something the company had not been able to foresee.[1331] Elkem-Spigerverket also tried to resolve some issues the steel crisis created for their FDI by buying already existing mini steel mills instead of building new ones; the aim was to extend its production capabilities and thus income, without increasing steel production on the British market. Thus, in many of the situations that arose for the three companies, no formal risk assessment or mitigation plan was prepared in advance, but risks were managed and mitigated as they arose.

Nevertheless, a majority of the investments by the three firms was successful, and this inspired the firms to continue investing internationally. Risk assessment and risk management contributed to the success of the investments, even though they were established prior to the increase in scientific interest in the field. It is therefore unlikely that increased scientific knowledge on risk and risk management in relation to FDI would have had a major impact on the way in which a majority of the investments would have been conducted. However, it could have had some minor impacts, in particular in the cases of the investments that did not perform as expected. Several of the investments could have benefited from further research on the competition, from a higher focus on risk assessment, and from earlier-laid plans for how to manage the risks involved in the investments. The firms were, however, willing to take the risks involved with their investments because all three firms had identified international expansion as a future aim. The three firms continued to do FDIs all around the world and they grew into international firms with subsidiaries in several different countries before they were all themselves acquired by other firms.

[1330] Interview with Heiberg, August 2015
[1331] Interview with Halvorsen, August 2015.

# 9.0 Summary, findings, and further research

The Norwegian companies Dyno, Norcem, and Elkem-Spigerverket all entered into FDI for the first time in the 1960s and 1970s. This was the beginning of what grew to become several more FDIs by all three firms throughout the rest of the 1970s. Several different strategies were implemented to manage or mitigate the risks associated with the FDIs. As this thesis has shown, there were several similarities between the three firms in their approaches. This is particularly the case in regard to their background to and rationale for investing abroad, although there were also similarities in how the firms chose to manage the risks involved with FDIs. The most commonly used approaches to risk management by the three firms were the implementation of joint ventures, where the risk is shared, to rely on strong relationships and trust with the investment partners, insurance through the GIEK and high-quality production. This aim of this research has been to contribute to increased knowledge and understanding of internationalisation and risk management, and also to highlight the contributions that modern risk management research has made. This has been achieved through using historical methods within a business research framework. This research has tested if the risk management theories were utilised by the three firms in their investments abroad before the increase in research on risk management, and through this tested whether the theories are timeless.[1332] The research has shown that risk management strategies were applied and utilised by firms who did FDIs prior to the increase in risk management research, and that increased research and knowledge on the management of foreign direct investment risks have not necessarily significantly changed how firms view and manage risk in FDIs.

## 9.1 Summary of findings

This research has *determined why the three firms wanted to invest abroad and what they expected to gain from it.* This research has found that the Norwegian background affected all three firms' investment decisions. All of the firms believed that they had

[1332] Kipping, M. & Üsdiken, B. 2014. History in organization and management theory: More than meets the eye. *The Academy of Management Annals*, 8.1: 535-588.

limited expansion possibilities on the Norwegian market. The competition on the home market was also weak, due to mergers and agreements, and none of the three firms had to protect their home market to any significant degree. They were thus able to focus on foreign markets. Other than this, the three firms invested abroad for various reasons, including a desire to retain existing market share and sales, ensure export, taking opportunities, belief in the value of production knowledge, and the possibility of lower production costs.

The research has also *investigated how the companies perceived risks and it has contributed to an increased understanding of how risk perception affected the FDIs.* Risk perceptions and risk appetite varied in the three firms and affected the degree to which the firms were willing to take risk, and the locations where the firms chose to invest. In several cases, the firms opted to accept the risks involved with investing rather than risk losing an existing market share or sales agreement. The firms' willingness to take risks was greater in the cases where the firms stood to lose market share. The size of the investment also affected the firms' risk appetite. All three firms had international experience from export before they invested abroad, but the firms with the most experience from export were the most risk-willing.

This research has also *investigated how the companies chose to manage identified risks and what risk management strategies they preferred.* All three firms conducted research in advance of their investments in order to guide their decisions on how to invest and how to manage the associated risks. The risk-management strategy that was most often utilised by the three firms was joint venture as the entry mode. The selection of the investment country was another risk management strategy used in some of the investments. The companies chose countries where the risks were perceived to be lowest, out of the various available options. However, in several cases, the investment decision was based on a specific opportunity or on existing market share, and selection of country was thus not a consideration. Other risk-management strategies that were utilised by the three firms were a high focus on the quality of production, the seeking of guarantees from the GIEK, resolving issues with trade unions in advance, use of

joint ventures, and the building of relationships and trust. The latter two were the preferred risk-management strategies in several cases.

This research has *compared the three firms' decisions, risk assessment, evaluation, and risk management practices,* and has found marked differences, both between the three firms and between their individual investments, in how risks were managed. All three firms carried out research on the market, the potential for profit, and how the investment should be carried out, before they invested. However, the type of research, the amount of research conducted, and the implications of this research varied between the three companies.

One of the most important types of risk associated with investments outside of Europe was political risk. Guarantees from the GIEK were used to offset some of this risk, as well as maintaining a good relationship with the political leaders in the country. The one area where risk management and risk-mitigation strategies seem to have played the largest role in regard to the investment decisions was concerning entry mode and ownership structure. This was particularly the case for the firms that invested outside of Europe. Joint ventures were the most commonly used entry mode. Elkem-Spigerverket opted for wholly owned investments in England, but a possible joint venture was discussed as a risk mitigation strategy. Several of Norcem's investments were established in partnership with the local government, which helped to mitigate some risks. Dyno selected a joint venture ownership structure with plywood and chipboard producers in its later investments to ensure sales, and with local citizens in the earlier investments to ensure both regional knowledge and investment incentives that required local ownership.

The three firms' background to and rationale for their FDIs were similar. However, the risk-management strategies they chose to use sometimes varied. This research has investigated and explained why the firms took different risk management approaches, which was found to be for a variety of reasons. The firms' risk appetite affected how much risk they were willing to take, and in which countries they chose to invest. The type of countries they invested in further influenced the risk-management strategies

the firms utilised, such as the availability of guarantees from the GIEK. Elkem-Spigerverket had one of the few wholly owned investments included in this research; the company argued that it was financially stable enough to take the risk, and thereby preferred to retain the control, while the other two firms preferred to share the risk with other partners.

The research has also *discussed how the firms' investment decisions, risk evaluation, and risk management compared with risk management theories,* and has *investigated to what extent modern risk management was practised in the three firms during the 1960s and 1970s.* Although the firms invested abroad before the major increase in scientific interest in risk management, both risk and the management of risk was a consideration in the three firms' FDIs. Several theories on how to manage risks were relevant to their investments. Although the scientific research on risk has increased since the firms made their first investments, it is concluded in this thesis that it is not likely that this knowledge would have had a significant impact on the investments. Risk management was clearly already a consideration and a part of the investment process, and thus greater knowledge would only have increased its role. Nevertheless, increased knowledge and understanding of risk could have enabled the three firms to be better prepared for the risks associated with their investments, and they could thus have been better equipped to deal with them. This could have had some benefits, however, it is not likely that this would have had any significant impacts on a majority of the investments.

This research has also shown that most of the options listed in ISO's risk management standard[1333] were utilised by the three firms throughout their investments. For instance, they avoided risk by decided not to move forward (option A) when the investment was seen as too large or risky. In several of the investments, the firms also took on risk in order to pursue an opportunity (option B); these opportunities included various scenarios, from a firm looking to sell, a government looking for new firms to get involved in the country, to a particularly promising market. Agreements were

[1333] Purdy, G. 2010. ISO 31000: 2009—setting a new standard for risk management. *Risk analysis,* 30**,** 881-886.

established in advance of some of the investments, with the aim of removing a source of risk (option C). This was particularly the case for Elkem-Spigerverket's agreement with the labour unions in England. The firms also attempted to change the likelihood of the risk being realised (option D) in the investments through building relationships and trust with the parties they invested with, and with the local government. The firms changed the consequences of risk (option E) through seeking guarantees from the GIEK, which meant that up to 90 per cent of their investments were covered against political risk. Two of the firms, Dyno and Norcem, shared the risk with another party or parties (option F) through joint ventures in a majority of their investments. Elkem-Spigerverket also discussed this option. Also, the firms chose to retain the risk through an informed decision (option G), as all three companies carried out research in advance of the investments in order to be prepared, but still decided to invest. However, the research carried out in advance varied in terms of how much focus each of the companies put on risk-relevant issues.

### 9.1.1 Summary of the most significant findings

The most important findings in this research can be summarised as follows:

The firms all wanted to invest abroad because they considered there to be limited possibilities on the Norwegian market. All firms had international experience from export before they invested abroad. Risk was an important consideration in all investments, and several strategies to mitigate risk were implemented. All three firms focused on the importance of high-quality products as an appropriate risk-management strategy for a firm from a small country.

Risk management and risk-mitigation strategies were applied by all three firms in their investments, but none carried out a systematic risk assessment. All three firms, however, conducted research before deciding to invest abroad. Risk perceptions varied across the three firms and affected the types of risk they were willing to take. In several cases, the firms opted to accept the risks involved with investing over the risk of losing an existing market.

One of the most important types of risk was political risk, in particular for the investments in countries outside of Europe. Guarantees from the state-owned Guarantee Institute for Export Credits (GIEK) were used to offset some of this risk, together with joint ventures and maintaining a good relationship with the political leaders in the relevant country.

The country where the investment would be located was often decided based on an assessment of the risks involved. The companies chose the country where risks were perceived to be lowest, amongst the various options. However, in several cases, the investment decision was based on a specific opportunity or on a desire to maintain an existing market share, in which case selection of the country was not an option.

Selection of ownership structure was frequently used as a risk-mitigation strategy, in particular in politically unstable countries. When a joint venture was chosen, a considerable emphasis was placed on the selection of the other partner or partners in the joint venture, and their potential contribution, as buyers of the product, or as the state, was an important aspect of this risk-management strategy for many of the investments. The entry mode the firms chose depended on the offered ownership, tax considerations, and the risk associated with the investment.

Networks and the building of trust was another important risk-management strategy, in particular in investments in political unstable countries. The building and maintaining of relationships was used to mitigate and offset risks such as bribery and political uncertainty. This strategy was also useful for expanding the firm's involvement in a country and for ensuring the sale of the final product.

## 9.2 Further research

This research has studied the internationalisation and the related risk management of three Norwegian manufacturing firms. There are several areas where this research can be expanded that fell outside of the scope of the current study. As noted in the introduction, later investments by the three firms are not included in this study, as the

firms had gained experience with FDIs by then, which may have changed their views on risk. However, to obtain further insights, the scope could be expanded to also include firms that invested abroad for the first time in the 1980s, to determine whether their risk management activities were expanded in line with the increasing research on the topic. Comparing the risk-management strategies used by firms over a longer time period could also contribute insight into and understanding of how experience affects risk perspective, investment decisions, and risk management. For the same reasons, the scope could be extended to cover firms that invested abroad even earlier than the three firms examined in this research. The scope could be further expanded to include more firms, and possibly those in sectors other than manufacturing. The geographical scope of the research could also be expanded. It is likely that the Norwegian context of all three firms had an impact on their investment decisions and risk management, and future research could therefore study whether companies from other countries that also invested abroad in the 1960s and 1970s chose to manage the risks involved with FDIs differently.

The method used in this thesis is historical research, which has been combined with theories on risk and risk management. This has been beneficial because it has ensured access to data that would potentially otherwise not have been available. Examples of this include the British government's discussion on Christiania Spigerverk's IDC application, the discussions related to guarantees from the GIEK and Norad, and some of the information provided in oral history interviews. Further research that combines historical research with the risk theories from management studies could contribute further knowledge and insight into how risk-management strategies have developed. This can therefore usefully be applied to other areas of research.

The chapters on the three firms and their context have highlighted some interesting topics where further research could contribute to increased understanding. One such topic is the Norwegian state's encouragement of FDI activities in the 1960s and the 1970s; in particular how the government viewed FDIs, if and what strategies they used to encourage this and what role the Norwegian democratic capitalism and corporatism have played in contributing to increasing FDIs by Norwegian firms in this period. The

Norwegian state has had relatively greater involvement in the economy compared to the other Scandinavian countries. Norway has also had a corporative and cooperative structure with broad participation by interest representation and interest organisations, in particular since the 1950s.[1334] Further research on the role of the Norwegian democratic capitalism in relation to export and FDI by Norwegian firms in the 1960s and 1970s could bring valuable contributions and understanding to the Norwegian business history literature, as only very limited research has been conducted on the topic of the Norwegian government's view of FDIs previous to the late 1970s. Another topic that could be explored in further research is the bribery and corruption involved with the investments in Africa and the impact of this on risk and risk-management strategies from the perspective of the investing firm. Another topic that could be explored in further research and a more in-depth understanding is the firms' focus on building and maintaining a good relationship with local investors or the local government as a risk-management strategy. Both Norcem and Dyno highlighted this as important, but research on this specific topic thus far is limited.

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- Da - L0667
- Da - L0761
- Da - L0793
- Da - L0799
- Da - L0794
- Eab - L0236

Finansdepartementet, Skatteavdelingen SL:
- Da-L0624

Forbruker- og administrasjonsdepartementet. Prisavdelingen:
- Db-L0204

Forbrukeravdelingen
- Da-L0156

Garantiinstiuttet for eksportkreditt (GIEK):
- Aa-0006
- Aa-0022
- Aa-0023
- Ab-0006
- Ab-L0021
- Da-0005
- Da L0021
- Da-L0137
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Handelsdepartementet, Valutakontoret:
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**Interview with Gerhard Heiberg**
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**Interview with Erik Lundgaard and Karl Ismar**
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