1. Introduction

During the summer of 1988, two events caught the attention of the general public in Sweden. In May, there was an increasing awareness of an unusual increase in algae growth, followed by alarming reports about the exceptionally high death rate of the seal population. These two events nurtured the increasing public attention given to questions of environmental protection. The connection between these events and the chlorine based pulp bleaching process was easy to make as the effects of effluents from the bleaching process had been the subject of discussion for some years. With a general election approaching, Swedish politicians were eager to take a stance in the debate and demands for increased regulation were often heard. As a result, the Swedish Pulp and Paper industry (P&P industry) faced the threat of extensive societal control. Obviously the fear was that this could force companies to increase investments in environmental protection. At this time, the belief was that these investments would never give any economic returns.

This example of unexpected issues faced by the P&P industry have increased during the last few decades, mostly because of the growing awareness of the public and the increasing coverage of these issues by the media. Issues that must be met, either by individuals, companies or interest groups such as trade organisations (as in the above case), occur without prior notice and need to be interpreted, labelled and related to the solutions adopted by those involved. The ability to act on these issues are often decisive if bankruptcy or perhaps even an industry decline is to be avoided.

This study focuses on how industrial sectors respond to issues such as the above - resulting from either external influences or internal developments - and how actors identify, label and relate issues to solutions during a long period of time. The process is understood by focusing on how a shared belief system evolves within the context of a specific industry (i.e. industrial wisdom).
1.1 The outline of this chapter

In section 1.2 a literature review is conducted. From the review it is argued that a gap can be identified of how the industry level relates to strategy formation processes in individual companies. On the basis of this the purpose of the study is formulated in section 1.3. In section 1.4 the empirical focus, i.e. the Swedish pulp and paper industry (P&P industry), is introduced. Finally, in section 1.5 the outline of the following chapters is presented.

1.2 A theoretical introduction

The field of strategy has long been dominated by a deterministic perspective (Bourgeois, 1980). The main influences underlying this perspective are industrial economics (Bains, 1959; Scherer, 1980; Porter, 1980), and a broad array of institutionalist schools (Hannan and Freeman, 1977; North 1981; DiMaggio and Powell, 1983). According to the deterministic perspective, change is imposed on the organisation. Environmental forces thus ultimately determine the development of the organisation. The organisation must adapt to these environmental forces or it will cease to exist. In some cases, it is even suggested that organisational adaptation is of minor importance, as environmental realities will eventually decide which organisations are to survive (cf Hannah and Freeman, 1977). According to this view, the effects of managerial intervention are limited. The focus is here on two main areas. Firstly, the identification of environmental changes, and secondly, changes in internal efficiency to adapt to these changes as far as possible. Internal efficiency is increased by the use of traditional measures, i.e. co-ordination, organisation, planning and control (Mintzberg, 1973). The purpose of planning is to identify inevitable changes in the environmental situation and by implementation of internal adaptations to theses changes, increase acceptance and viability, at least in the short term perspective. An alternative view postulates that organisations and top executives
possess a freedom of strategic choice (Child, 1972; Oliver, 1988; Whittington, 1988). Strategic choice is not, however, without any constraints or limitations. The difference being that constraints regarding strategic choices are more ambiguous and not exclusively concerned with specific environmental forces. Constraints are also created by the organisation itself, as previous actions determine the scope of possible present actions (Weick, 1979). This view questions the idea that constraints are prescribed objectively (Bourgeois, 1980). It has been argued that strategic actions must be regarded as the result of environmental influences, present internal processes, as well as ideas and behaviour rooted in the past (Melin, 1987). Moreover, the environment is not always so easy to interpret (Dutton et al, 1983, Frankelius, 1997). Environmental changes can be interpreted both as opportunities or threats, depending upon the prevailing attitude of the interpreter (Dutton and Jackson, 1987).

Following this view we argue that the study of strategies should include the strategy formation process. Strategy emerges as a pattern of actions falling into place.

"Strategy is a pattern - specifically, a pattern in a stream of actions. By this definition, when Picasso painted blue for a time, that was a strategy, just as was the behavior of the Ford Motor Company when Henry Ford offered his Model T only in black. In other words, by this definition, strategy is consistency in behavior, whether or not intended." (Mintzberg, 1991:13, emphasis by the author)

Some strategies can be the result of deliberate intentions, others emerge through the influence of stakeholders. Hence, strategy formation focuses on the circumstances under which strategic actions are taken. Therefore, the study of strategy formation includes both a focus on the dimension of action and the dimension of argumentation and justification (Mintzberg, 1978; Brunsson, 1989; Brunsson, 1993) Furthermore, to come to an understanding of the processes underlying strategic actions, internal as well as external conditions must be examined (Starbuck, 1976; Pettigrew, 1985; Melin, 1987).

Brunsson (1985) illustrates the difference between deterministic perspectives and the view which acknowledges and attempts to reconcile the ambiguity and complexity involved in strategy formation. The subject discussed in Brunsson’s book is the role played
by decision-making in strategic processes. From the traditional point of view, decision-making is seen as the process in which top executives scan the environment, collect and collate information and, on the basis of this determine a planned strategy to ensure the optimal result. Thus, changes in strategic decisions originate from environmental changes and the response is to adapt to this change in the best possible way. This reasoning can be compared to what Brunsson calls "an irrational" way of decision making i.e. decision making focusing upon the organisational consequences of decisions taken. The main point is that it is not only individual decisions and compliance with environmental demands which constitute the most important factors in decision-making. Brunsson therefore argues that all actions taken are not necessarily the result of the traditional decision-making process. On the contrary, organisational actions are often the result of an ideology facilitating change. This organisational ideology is defined as beliefs shared by organisational members.

He elaborates on the role of shared beliefs in order to gain greater insight into decision-making. He regards, for instance, the system of shared beliefs as "changetful" (more adaptable to changes imposed from the environment) or "changeable" (representing an organisation that depends more on internal pressures than on outside influences for the instigation of organisational change).

When considering the many ambiguities and complexities involved in strategic moves, Brunsson stresses that strategy formation cannot only be understood from a behavioural model built on causality between environmental change and organisational behaviour. Instead, shared beliefs should be closely examined in order to understand organisational changes.

Brunsson's contribution came when research concerning cognitive and symbolic aspects of the organisation were increasing. The old conception focusing on environmental adaptation, planning and control had to be balanced by a perspective giving consideration to the ideological dimension in organisations (Alvesson and Berg, 1988).

The majority of studies focusing on shared belief systems in management research use "the organisation" as the principal analytical unit (Alvesson and Berg, 1988). This choice of unit can give important insights but can also diminish the overall understanding of how strategies evolve. Hedberg and Jönsson (1977) and Jönsson et al (1974) represent early examples of studies that focus on shared belief
systems. These authors argue that organisational actions are based on the organisational meta-system expressing itself in myths (Hedberg and Jönsson, 1977). These myths include a set of basic assumptions from which the organisational strategy is constructed. The myth therefore becomes a "theory of the world" (Hedberg and Jönsson 1977:90). It can be argued that organisational strategy is determined by the decision-maker's theory of the world and the filter that this myth provides.

Similar assumptions are presented in many articles examining the subject of shared beliefs. Some concepts used to describe shared belief structures at the organisational level are paradigm (Johnson, 1987), interpretative system (Daft and Weick, 1984), interpretative schema (Ranson et al; 1980; Bartunek, 1984), organisational memory (Walsh and Ungson, 1991), organisational knowledge structure (Lyles and Schwenk, 1992), shared meanings (Smircich, 1983), organizational culture (Deal and Kennedy, 1982) and collective mind (Weick and Roberts, 1993). Shrivastava and Schneider (1984) argue for instance that organisations have organisational frames of reference (OFOR).

"Organisational frames of reference operate to explain what happens within and outside the organisational universe...OFOR creates a filter through which future events are screened and organized creating a self-perpetuating system." (Shrivastava and Schneider, 1984:801).

The emphasis on the shared belief system within all of these studies has been an important contribution to the understanding of organisational processes, including that of strategy formation. Change in shared beliefs, are from this 'integrative perspective' (Meyerson and Martin, 1987) seen as divided into evolutionary or revolutionary phases. In a normal situation, a coherent set of shared beliefs held by members of the organisation allows evolutionary change. However, when environ-mental stresses increase, the belief system must undergo revolutionary changes (cf Starbuck and Hedberg, 1977; Johnson, 1987 and Kikulis et al, 1995). The role of shared belief systems is, in this context, of vital importance to come to an understanding of the complex and interrelated conditions underlying strategic actions.

1 Schneider and Angelmar (1993) and Dunn and Ginsberg (1986) present lists of another 13 conceptions of belief structures in organisations.
However, one problem with this approach is the emphasis on the focal organisation as the unit of analysis. Concentrating only upon the shared belief system within organisations is perhaps doubtful as it tends to maintain and even stress the adaptive view of strategy formation (Whittington, 1992). Pfeffer (1987) uses the expression ‘individu-alistic’ when he discuss the approaches that neglect the embeddedness of organisations in wider contexts. He argues that strategy research must incorporate an understanding of the organisation in relation to this wider context.

"This requires moving away from the focus and emphasis on amorphus, undifferentiated environmental circumstances, broadening attention to incorporate a wider range of strategic actions and responses, and moving concern from internal adjustments and responses to attempts to manage, structure and in other ways create a negotiated environment or order." (Pfeffer, 1987:134)

In his request for studies focusing on the negotiated environment, Pfeffer stresses the processes in which companies, more or less intentionally construct the environment that they themselves inhabit (cf Cyert and March, 1963; Miles R. E. and Snow, 1978; Weick, 1979). In this, he pursues the question raised by Astely (1984) who, following studies by Emery and Trist (1965), argues that environments are interconnected and greatly interdependent. The company must thus be seen in relation to many other organisations. The complexity of this net of relations makes it hard to predict outcomes of individual actions. Astley suggests that organisations create collective strategies to manage this complexity.

Research dealing with collective strategies has, however, its shortcomings. Easton et al (1993) argue that this research is rather limited in scope and theoretical in character. There is also a tendency to focus only on intentional actions enforced by economiclogical interests (cf Bresser, 1988; Nielsen, 1988; Jarillo, 1988; Borys and Jemison, 1989). Bresser and Hall (1986), for instance emphatically

---

2 For illustrative purposes Pfeffer (1987) is the reference used to make this point. However a large number of theorists have been stressing this problem earlier. Pfeffer did for instance make the same point in 1974 (Miles, Snow and Pfeffer, 1974). See also Pfeffer and Salancik (1978).
maintain that they focus on "intended collective strategies" such as regulative legislation, contracting, mergers, joint ventures, co-opting, interlocking directorships, trade & professional associations and industry leadership. From Bresser and Hall’s perspective, all of these can be seen as means used by top executives to gain advantages for their own organisations.

However, concepts such as the negotiated environment and cognitive communities (Meindl et al, 1996:xiii) take the reasoning concerning intentional strategies one step further. Increased interaction between organisations is the base for the development of shared belief systems in these concepts (Pfeffer and Salancik, 1978). As actors co-operate or take part in the industrial debate, they exchange information and knowledge. This perceived information and knowledge contains beliefs describing their present situation and anticipated future developments. Thus, social interaction fertilises the homogenisation of shared beliefs on the industrial level (Abrahamson and Fombrun, 1992, 1994). The idea of negotiated environments makes it of value to expand studies of the ideological dimension from the single company to wider settings. In this respect, the recent focus on shared beliefs within the context of an industry is of interest (cf Huff, 1982; Spender, 1989; Phillips, 1990; Porac et al, 1989 and 1995; Hellgren

3 Pfeffer and Salancik use the concept of norms.
4 The number of concepts used to delimit groups of organisations are numerous. Depending on which characteristics that are used the delimitations and concepts differ. Using interaction as starting point concepts, such as; sectors (DiMaggio and Powell, 1983), industrial fields (Hellgren and Melin, 1992), organisational communities (Astley and Van de Ven, 1983) and business communities (Fombrun, 1992) surface. However these and similar concepts are also used when an ideological homogeneity are emphasised. See for instance, organisational fields (Sahlin-Andersson, 1996); strategic groups as defined by Reger and Huff (1993) and cognitive communities (Meindl et al, 1996). Emphasizing materialized homogeneity as the production of similar products the concept of industry are traditionally used (Nightingale, 1978; Branuerhjelm, 1992). In this study industry however stands for a high degree of homogeneity in all three structural dimensions mentioned above - the interactive or relational structures, the ideological or shared belief structures and the materialized or infrastructural dimension. In section 2.2.3 the constitution of an industry and thus a context are further discussed. The delimitation of the Swedish P&P industry is also discussed in section 3.3.2. The change of industry boundaries are discussed in chapter seven.
An increasing number of studies consider structures of shared beliefs at the industry level to be a rewarding way to expand knowledge of organisational development. Empirical studies providing ample indications of this to date are, for example, Grinyer and Spender (1979); Rask (1984); Spender (1989); Phillips (1990); Laukkanen (1996). However, these studies also illustrate somewhat different approaches in studying shared beliefs at the industry level. It seems as if shared beliefs can be studied in both a more basic and a more situational way. The latter are often carried out together with the consideration of future strategic choices.

Phillips (1990) studies beliefs or assumptions commonly held within wine companies and art museums. Focusing on the industry wide culture, she includes all groups of employees. She categorises shared beliefs into six categories: relationships between the group and the environment; the origins of truth; the nature of time and space; the innate human nature, the purpose of work, and the structure of the work relationship. In Phillips’ study, the explicit aim was to describe the basic beliefs within the two industry cultures. The study can thus be said to emphasise institutional beliefs. For instance, the nature of time in the vineries was oriented towards one year planning periods and dominated by sequential thinking concerning improvements in quality and reputation.

A more situational approach regarding beliefs is used by Spender (1989) when he mapped the "business specific world-view of a definable 'tribe' of industry experts." in three industries (Spender, 1989:8). Building his theoretical framework on the assumption that industry experts strive for uncertainty reduction, he concluded that there are "industry recipes" or knowledge bases in these industries. The industry recipe guides the experts towards the future.

"The recipe evolves as an accepted rationality. It is effective in that its
guidence is seen as relevant. It is efficient in that it recognizes the context’s search costs and decision-pressure.” (Spender, 1989:63)

The recipe aims primarily at reducing the uncertainty of the future. Obviously the industry recipe draws from the collective experience held by the industry experts, i.e., their collective knowledge base, but the recipe in itself is relevant only in that it gives a guidance for future behaviour in strategic issues. Phillips (1990) calls this perspective a narrower orientation towards strategy oriented assumptions or beliefs. The concept of industrial wisdom (Hellgren and Melin, 1992; Hellgren et al, 1993) follows Spender’s notion of the industrial recipe, as it focuses mainly on the strategic beliefs of top executives regarding future oriented issues in the industry. However the introduction of this concept is an attempt to include both the stability inherent in institutional beliefs and the changeable nature of situational beliefs. Industrial wisdom is based on "a cognitive and interactionist view of reality, describes collectively shared ideas, beliefs, values and norms about the rules of the games and possible strategic action in the industrial field." (Hellgren et al, 1993:103). That is, industrial wisdom encompasses both institutional beliefs (collectively shared ideas, beliefs, values and norms) and beliefs related to future oriented issues in any specific situation (possible strategic action).

Spender (1989) and Gordon (1985, 1991) attempt to theorise about the dynamics of industry-wide beliefs even though the methods used in their research are cross-sectional. Gordon suggests that changes on the organisational level are constrained by industrial wisdom (i.e. the shared belief system on the industry level). Thus, organisational beliefs are related to, and dependent on, industry wide beliefs. In Gordon’s framework, organisational beliefs are therefore seen as easier to change in directions complementary to the wider industrial wisdom. This follows Spender’s (1989) idea that industrial wisdom provides guidance for strategic actions in organisations. However, Gordon stresses the normative qualities of industrial wisdom.

"Industry-driven assumptions are stable shared by management and labor alike, and productive because they insulate a company from taking inappropriate actions as a reaction to short term crisis situation.” (Gordon, 1991:402)
Spender elaborates on this idea and adds two interesting findings. Firstly, beliefs do not necessarily have to be industry wide. In one of the industries, Spender identified two sets of industrial recipes. He concluded that the industry in question seemed to be in a period of transition from one recipe to another. Secondly, changes in industrial recipes at the industry level are caused by changes taking place within organisations. According to Spender it is only one, or very few organisations that adopt a "new rationale" (Spender, 1989:195) which is then spread across the industry. Thus, the existence of two sets of recipes in one industry can be interpreted as the identification of an ongoing diffusion process. This diffusion process originates from experiments made in one of the companies. At any rate, Spender does not attempt to identify the source of change. However, this proposition emphasises the need to include the dimension of action in the study of change in shared belief systems.

Both Gordon’s and Spender’s theories about changes in industrial wisdom assume a more or less evolutionary process. The content of industrial wisdom reflects environmental change. Reviewing empirical studies, this view is both supported and opposed. Hellgren and Melin (1992); Hellgren et al (1993) and Pettersson (1993) focus on developments in the Swedish P&P industry during the 1980’s. Using the concept of industrial wisdom in a future oriented way, similar to Spender’s use of the concept of the industrial recipe, the picture that emerges indicates a rather drastic change in situational beliefs. However, these studies focus on two specific points in time. One, the beginning of the 1980’s, and two, the end of the 1980’s. The process in between is poorly covered and, following the main focus on beliefs about the future, changes in the entire shared belief system are not explicitly discussed.

To broaden the scope, other students involved in the study of industry change have also identified phases of both gradual and radical change. Meyer et al (1990) argue that industrial change is revolutionary. Based on a long empirical study within the hospital sector in the US, they identified distinct periods of revolutionary change. Their findings were supported in a wide range of industry studies (financial services, Ballarin, 1986; telecommunications, Astley and Fombrun, 1983; electric power, Heffner, 1990; airline transportation, Pearce, 1985; national sport organisations, Kikulis et al, 1995). These studies are in turn supported by the theoretical
arguments developed by Abrahamsson and Fombrun (1994), who postulate links between the level of interaction, homogeneity in belief systems and the occurrence of revolutionary change. Gagliardi (1986), studying companies, also argues that shared belief systems have a tendency to stabilise and preserve the status quo. The importance of the perceptual filter in myths or FOR’s, collective minds and so on, enhancing standard procedures, stresses the problem of continuous adjustments to environmental changes. As discussed earlier, the paradigmatic qualities of shared belief systems constitute the inevitable need for revolutionary changes in strategies (Johnson, 1987).

The first two ways of depicting change at the industry level (evolutionary or revolutionary) can be complemented by a third that argues that change is a cyclical phenomena. Authors such as Peterson and Berger (1971), Hirsch (1972), Thornton, (1995) and Abrahamson (1996) all treat changes at the industry level as a regular phenomena. The problem with most of all these theories is, however, that they classify changes according to their outcomes or consequences. As Van de Ven and Poole (1995:524) recognise, there are few attempts to analyse and classify theories according to the conditions that provide the motivation for strategic change.

In summary, the importance of the ideological dimension describing structures of shared beliefs is well supported in literature. There is also support for the argument that the relationship between strategic actions in the focal company and shared belief systems is of vital interest in order to understand the evolution of organisations. However, both methodological and theoretical issues are detected in the review. Hence, the conclusion can be drawn that the contribution from studies of belief systems is not fully exploited in existing strategic management literature.

Following the growing interest in the embeddedness of organisations in wider contexts, the lack of studies focusing on the phenomena of industry wide shared belief systems is striking. Whipp et al, (1989) discuss how strategy evolves in mature industries and note that:

"It is ironic that while students of corporate culture have largely ignored the sector, industry analysts eschew the use of such a concept as culture" (Whipp et al, 1989:566)
Thus, according to Granovetter (1985), the role of the industry level in strategy formation processes can be described as "undersocialised". That is, an atomised actor explanation, which presupposes the idealised conception of perfect competition, is dominating. Further studies of industries as socially constructed entities may, in this perspective, increase the knowledge of the role of the ideological dimension for organisational behaviour.

Following a review of recent studies of shared belief systems in the industrial context, the lack of longitudinal and processual approaches becomes evident (cf Huff, 1982; Huff and Reger, 1987; Bowman, 1990). The studies reviewed so far are mainly designed in a cross-sectional way. Attempts to elaborate on the role of industry based shared belief systems in strategy formation are, from these studies, based mainly on speculative argument. The need for studies that depict change in an industry-based shared belief system are obvious (cf Räsänen and Whipp, 1992). Moreover, there is a lack of research regarding the interaction between industry based belief systems and the formation processes taking place in individual companies.

"Beliefs are historical - the very term carries meanings of a temporal character. They are never exigencies of the moment but must develop and hence imply process. They can only be conceived through time. Members bring to the present the definitions and beliefs they formed in the past. The study of beliefs thus calls our attention to the treatment of history as an issue in all organisations and as a supplier of beliefs." (Goldner, 1979:128)

1.3 The purpose of the study

The theoretical overview in this chapter stresses the importance of shared belief systems as a means of understanding how strategies evolve. Few and somewhat contradictory conclusions were reached in research focusing on industry-wide shared belief systems. It is apparent from the concluding points above that problems of methodology are partly responsible for this confusion. As a result of these findings, questions remain open for further research. Two broad research questions can summarise the discussion so far.

- In what manner do shared belief systems at the industry level (i.e.
industrial wisdom) change?

- How can changes in industrial wisdom be related to strategy formation in individual companies within the industry?

Regarding the lack of studies focusing on the processual and longitudinal aspects of ideological dimensions, a third research question arises.

- How is it possible to operationalise shared belief systems in a longitudinal manner at the industry level?

It is upon these research questions the purpose of the study is based.

_The purpose of this study is to complement and elaborate theories of stability and change in the field of strategic management. More specifically, the aim is to develop a method that allows a shared belief system at the industry level (an industrial wisdom) to surface in a processual and longitudinal manner and to enhance theories about the interaction between industrial wisdom and strategy formation in individual companies._

### 1.4 The empirical focus

As a new doctoral student I was introduced to an ongoing research project that dealt with strategy formation. As a member of the research team, my task was to register information concerning the development of the Swedish P&P industry during the period 1980-1990. The result was a 400 page report in which the description of a fascinating industry unfolded - an industry with a long and exciting history - an industry dependent on large pulp and paper mills, and in which gigantic step-wise investments were one of the important characteristics - an industry that is of vital importance to the Swedish economy - and an industry undergoing rapid development during the last decade.

The report submitted was used partly as empirical data in an article (Hellgren et al, 1993). In this article the concept of "industrial wisdom" was launched. As discussed above, one of our observations in the article was that the industrial wisdom in the P&P industry was subject to radical change during the 1980’s. However, as we had used
1980 as our starting point, we had no explicit reference to the history of the industry in support of this statement. Moreover, we did not study the change process in depth. Other authors however supported our conclusions regarding radical changes in the industry,\textsuperscript{8} Ds 1991:35; Clark (1990); Romme (1994); IVA, (1993:2 and 4).

In studying the P&P industry I came to realise that ten years is a rather short period of time. The more information we gathered, the more it became obvious that this limited our ability to understand the full nature and intensity of changes taking place within the industry. In the present project the response to this limitation was to expand the time period to 1945-1990, a period characterised by several economic cycles and the changes observed during the 1980’s could thereafter be put into context. From these empirical observations and gradually increasing theoretical understanding, the present project evolved: \textit{a study of industrial wisdom in the Swedish pulp and paper industry 1945-1990}.

\textsuperscript{8} Hellgren et al (1993) was originally written in 1991 - i.e. the reports referred to here were published after the first version of the article.
1.5 The outline of the study

This study is arranged, as illustrated, in a rather conventional way.

**Figure 1.1. The disposition of the study**

In the first chapter, the aim is to introduce the theoretical and empirical field. The theoretical introduction is elaborated upon in chapter two. In this chapter, an analytical framework gradually develops that is later used in the analysis. Chapter three discusses the methodological assumptions that the project is based on. Chapter four presents the case: The Swedish P&P Industry 1945-1990. In the first two sections of the chapter, the outline of the case is discussed and an overview of the industry's history is presented. In sections 4.3-4.6 the time period 1945-1990 is examined.

Chapters 5-8 are devoted to the analyses of the case. In chapter five, the identified issues are analysed in terms of combinations of threats/opportunities and issues/solutions. In chapter six, some institutional beliefs emerging from the analyses in chapter five are presented. In this chapter the sources, the content and the forms that institutional beliefs take are highlighted. In chapter seven the change in industrial wisdom during the period 1945-1990 is discussed. The interaction between industrial wisdom and the dimension of
argumentation and justification, and the dimension of action in strategy formation processes are highlighted in chapter eight. Six "vignettes" are used to illustrate strategy formations and the relationship between these processes and situational and institutional beliefs. Finally, in chapter nine, the study is summarised and the theoretical results and managerial implications are discussed.

2. A theoretical framework

The following theoretical framework discusses the questions raised in the introduction. The first section of this chapter (2.1) is used to elaborate on the existence and meaning of beliefs. In this part, the individual, seen as being a cognitive categoriser emerges. In the second section (2.2), this perspective is the starting point for a discussion regarding social categorisation as it is reflected in issues. As the discussion proceeds, a tentative framework for application in the empirical study evolves (2.3). The structure of this chapter does, to some extent, reflect my own learning process. This is of advantage to the reader as it allows the possibility of starting from different levels. Those interested in the learning process and wishing to gain a thorough understanding of the analytical framework should start at the beginning. Those more advanced and/or impatient can begin by reading section (2.2).

2.1 Beliefs and categorisation of beliefs

The cognitive perspective covers a broad array of research that focuses on the organisation of the human mind (Atkinson et al, 1990). Within this broad field, a large number of researchers use and develop ideas about the organisation of thoughts, memory, perception, problem solving and reasoning (Markus and Zajonc, 1985; Löwstedt, 1989; Anderson, 1985; Söderlund, 1993). In the following section, a small part of this wide array of research is provided as a framework for
further discussion regarding beliefs. As the discussion proceeds, the concept of the cognitive perspective will be further discussed and examined by theories focusing on the social aspects of shared beliefs.

The concept of belief is therefore chosen to describe the most basic elements of thinking, i.e. the ability to establish relationships between objects. Beliefs are defined as "understandings that represent credible relationships between objects, properties or ideas." (Sproull, 1981:204).

One of the dominating uses of the concept of belief is within attitude research. The basic model used in most attitude research is a tripartite model in which attitudes are constructed by a cognitive (knowledge), an affective (feeling) and a conative (disposition, behaviour) part (Pieters, 1988). Beliefs then, are mainly used to express the cognitive (knowledge) part of this model. Fishbein and Ajzen (1975:131) using this model as a starting point, argue that beliefs are to be seen as the "subjective probability of a relation between the object of the belief and some other object, value, concept or attribute". Despite the striking similarity with Sproull's definition above there is a difference, as the latter definition includes values.

Sproull (1981) divides beliefs into three categories: phenomenological beliefs; causal beliefs; and normative beliefs. Phenomenological beliefs are strictly descriptive. The belief stating the occurrence of regular business cycles in the P&P industry, is one example of a descriptive belief. A causal belief addresses some kind of relationship between two objects. The belief that investments in new machines will have an impact on the market balance within the P&P industry is an example of a causal belief. Finally a normative belief describes the preferred situation. For instance, the belief that a predictable and steady growth in demand will allow the introduction of new paper machines. The three categories of beliefs represent information about an object. A fourth category sometimes included in the belief system focuses on behavioural intentions (Fishbein and Ajzen, 1975). This category involves the willingness of the individual to take action himself, i.e., the individual is the object in the assumed causal relationship.

Fishbein and Ajzen (1975) present a theory of belief formation at the individual level. Beliefs can, according to them, emerge from three processes. The first is through direct observation. The existence of regularity in business cycles within the P&P industry is often
mentioned when experts are interviewed. This belief can be seen as an example of direct observation by those active or knowledgeable about the P&P industry. In their observation of price and volume fluctuations, they conclude that business cycles exist and appear with regularity. However, the same belief can also be seen as the result of logical reasoning. The belief may, for example, be the result of knowledge about business cycles, and thus be constructed after having received information about the P&P industry. In this case, an expert in business cycles will know that business cycles appear with some regularity in industries producing low value added products. Therefore, information that the P&P industry to a large extent produces low value added products will lead the expert to conclude that it is also characterised by distinct business cycles. Finally, beliefs can be constructed by an outsider who is informed by "significant others". The reading of reliable reports regarding the regularity of business cycles within the P&P industry, can in this case, convince the outsider of the existence of regular business cycles in the P&P industry.

From this short review of attitude theories, the nature of beliefs and the existence of four forms of beliefs, the phenomenological, causal, normative, and intentional are identified. Moreover, three formation processes of beliefs have been identified; the direct observation, the logical reasoning and the information process. Beliefs do not, however, stand alone. As postulated in the introduction they can be seen as categorised. In the next section, this interrelation of beliefs in categories will be discussed.

2.1.1 The categorisation of knowledge

In the attitude research, beliefs were used to focus on the knowledge component in the formation of attitudes. The most influential ideas regarding the organisation of knowledge in the human mind entail theories about categorisation (Porac and Thomas, 1990). Within this broad classification a large number of concepts can be found. Some of the most popular are schema theories (Bartlett, 1932), propositional representations (Anderson, 1985), natural categories (Rosch, 1978) and belief systems (Abelson, 1973). These theories differ in some respects, but are all based upon an information process model in which
it is assumed that the human memory is organised according to categories (Lord and Maher, 1990). Emphasis on hierarchies differs within the different theories, but the idea of knowledge as linked in cognitive taxonomies (Rosch, 1978) are apparent in all theories (Stubbart, 1989). Categorisation is, in its essence, a way of organising and labelling (Bateson, 1979:30). The logic is simple. By identifying a prototype (Rosch and Mervis, 1975) a rectifier for a category is developing. This prototype represents the central tendency of the category. The closeness of other objects to this prototype vary as the list of attributes demanded are matched (Porac and Thomas, 1990). In the following, I have chosen the concept of schemes (the most popular) and belief systems (connect to theories of beliefs earlier presented) to elaborate on the basic principles underlying categorisation theories.

Anderson (1985) uses the example "house" to describe the basic idea of schema theory. When asked to describe a house, most people give a description of what it consists of, what it is built of, its function, shape and size. All these are a part of the schema about houses that are contained in the mind's memory bank. A house is the overall category in which knowledge about houses in general, and houses we know specifically are stored. The construction of schemes are seen as a way of storing knowledge in order to memorise. A representation of knowledge about houses is kept within the "house schema". This schema allows for automatic processing when a new situation similar to the house schema appears. Thereby the schema works as a short-cut when processing information. The schema is part of our long time memory. Any additions to the schema are thus registered and remembered (Gioia, 1986). Schemes can be divided into subgroups such as self-schemes (information about oneself), person-schemes (information about other individuals), persons in situation schemes (specific persons in specific situations) and scripts or event schemes (information about events) (Lord and Foti, 1986). Scripts or event schemes represent a more action oriented version of schemes. In scripts, it is not only object related knowledge that is stored, but also context specific knowledge about events (Gioia, 1986). Obviously, the existence of event related scripts is made possible by the existence of a broad range of object related knowledge categorised in schemes.

Beliefs, according to the above definitions, are the construction of two objects, which may be ideas, values, attributes or properties,
related to each other in a casual relationship. Abelson (1973) who focuses on the structure of beliefs, proposes that beliefs are also organised in systems similar to the notion of scripts. Belief systems hold a structural representation, organising beliefs hierarchically and deciding the rules of how to pass from one level to another. On simple levels the belief systems of individuals are similar, but at higher levels increasingly complex variations occur. Bem (1970) argues that beliefs can be divided into different categories according to the hierarchical level of "taken for granted". Bem differentiates between two main categories, expressing primitive and higher-order beliefs. Primitive beliefs dominate over higher-order beliefs in the sense that primitive beliefs are the links between sets of higher-order beliefs. As Bem states, "certain opinions seem to go together", i.e., if you heard someone declaring his view on one or two subjects you may, with some accuracy, guess his primitive beliefs when he turns to a third subject.

So far the existence of beliefs and the categorisation of beliefs have been described. As indicated, the very existence of beliefs and categorisations are motivated by the need for organisation. Thus beliefs and their categorisation assist in memory, allowing short cuts in the interaction between thinking and acting. However, the very assumption of the existence of a system of categorised beliefs also assumes that the belief system represents a stabilising structure, a base of knowledge (Lord and Foti, 1986) or a strategic way-of-thinking (Hellgren and Melin, 1993).

Studying top executives decision making, Donaldson and Lorch (1983) found that the belief system held by these top executives was of vital importance in the understanding of decision making. The role of beliefs was seen as:

"These interrelated beliefs act as a filter through which management perceives the realities facing its firm. Thus they serve two essential and significant functions. One is to simplify: to translate a world that can be overwhelmingly complex and ambiguous into comprehensible and familiar terms. The other is to provide continuity and stability when change threatens to undermine the lessons of experience."

(Donaldsson and Lorsch, 1983:80)
2.1.2 Belief systems and the social context

The use of the computer metaphor is apparent in cognitive theory (Björkegren, 1989; Stubbart, 1989). According to this, individuals can be regarded as information processors. Information processing is performed by the brain based on previously entered categories and belief systems. Stimuli are perceived and processed according to earlier experience. The way in which these experiences are stored, i.e. the existing categories and how they are filed will affect the registration and storage of incoming stimuli or data (Söderlund, 1993). The most used categories will develop with experience, and the process in which new data is handled will be faster and more advanced. Individuals who are extremely knowledgeable about specific areas can thus be named experts, as they hold advanced categorised knowledge within those areas. Lord and Maher (1990) present a growing body of research that indicates differences between the structuring of categories held by experts and novices. Experts tend to hold more advanced and detailed categories or schemes. Experts also process information differently and have the ability to be aware of inconsistencies. However Lord and Maher also stress that experts are not superior in any general sense. Experts only perform better within their specific domain of expertise. What qualifies an individual to be seen as an expert is not directly specified by Lord and Maher. The golden rule they mention is that ten years intensive study of a subject is a minimum requirement.

Much cognitive research in strategic management uses the implicit theory of expertise. The name "managerial cognition" (cf Stubbart, 1993; Löwstedt and Melin, 1995) implies that managers are empirical experts in areas of interest regarding specific research questions. For example, some top executives and a few independent industry experts were seen as experts within industry nomenclature and organisational categorisation in a study that examined rivalry in the Scottish knitwear industry (Porac et al, 1995). Similar assumptions are the basis of many studies. In a study of strategic groups in Chicago banks, "experienced bankers” were chosen to illustrate the nature of the competitive situation (Reger and Huff, 1993:108).

The concept of experts has also been used in this study. In chapter three, a more detailed discussion about the application of the concept is presented. At this stage, however, it is useful to present the broad
definition of experts. Following Lord and Maher (1990), an industry expert is regarded as a person taking an active part in the P&P industry for ten years or more. The activity of interest in this study is represented by their positions as top executives in pulp and paper companies, leading positions in trade associations, and consultants specialising in the P&P industry - i.e. those who are intimately concerned with the future development of the industry.

The use of the computer metaphor in cognitive research has been criticised for several reasons. First, the assumption that the individual is only a passive calculator receiving information or input from outside and processing this resulting in some kind of expression, action, feeling, decision or learning (Lord, 1985; Anderson, 1985). Much of this research neglects the fact that the individual responds to the information processed and by doing so influences future information received (Gioia, 1986). One way to relate information processing to subsequent behaviour is the notion of scripts or belief systems which are concerned with automatic behaviour, events and actions (Gioia and Poole, 1984). Here, however, most cognitive theories stop (Walsh, 1988; Müllern and Östergren, 1995). Weick (1979) proposes that the cycle is not as straightforward as the cognitive theories assume. He suggests that the traditional view of information processing which leads to thought and is then followed by calculated actions can be reversed, and maintains, on the contrary, that actions lead to the formation of beliefs. Categorised beliefs can therefore be seen as both the result of, and the departure point for actions. It can thus be argued that the thinking - acting relationship is not as simple as many information processing models assume.

A second criticism related to the above focuses on the atomistic view of the individual in cognitive research. In information processing models, individuals are treated as "Robinson Crusoes", categorising phenomena independently. This criticism is the point of departure for theories recognising the social aspect of categorisation (see Gergen (1992) for further arguments). Discursive psychology is one movement that directs attention to the social situation of categorisation (Edwards, 1991). In this perspective the dominating theories of categorisation are seen as focusing on abstracted categories of low interest when the aim is to understand how categorisation works within social contexts (Edwards and Potter, 1991).
"The idea that semantic categories have fuzzy membership boundaries, inequities of membership and permit multiple and even contrasting possibilities for description suggests that language's category system function not simply for organising our understanding of the world, but for talking about it in ways that are acceptable to the situated requirements of description, and to differences of perspective, and to the need to put words to work in the pragmatics of social interaction." (Edwards, 1991:523)

Edwards argues that cognitive science must be complemented to reach a more elaborate understanding. If researchers exclude the social context in which language is used, categorisation theories will never reach beyond the stage at which abstract categories can be described. The social context must also be taken into consideration if a more complete understanding of social evolution is to be obtained (cf Schneider and Angelmar, 1993).

That is, the existence of categorisations on the individual level is important to understand and regard. But when the focus is on how changes take place in shared belief systems, the focus must change somewhat and include a wider spectrum of social processes. Markus and Zajonc (1985) sees a new research trend which gives increasing support to this.

"The study of social cognition that seeks parsimony of a single process, unencumbered by motives and emotions or dynamic factors intrinsic to the internal structure of the cognitive content, will soon be replaced by a more complex and richer approach that makes room for the interplay of purely informational processes with those deriving from social factors. The swing toward "hot" cognition is already in progress." (Markus and Zajonc, 1985:214)

2.2 Social categorisation

The approach followed so far reviews the individual, his/her beliefs and categorisations. In this review, the concept of the belief system has been used to illustrate the categorisations used by the individual. This will now be followed by a discussion of social categorisation, i.e., the existence of shared belief systems. In section 2.2.1 issues as social
categorisers will be focused. As a result of this discussion, the need to illuminate the constraining and enabling qualities of shared belief systems emerges. This subject is dealt with in section 2.2.2. In section 2.2.3 the emphasis is on the context in which shared belief systems appear and in 2.2.4 shared belief systems and change will be examined. In this section the concepts of resources and action capability is introduced to identify actors having the capability of initiating change. Finally in 2.3 the discussion is summarised and an emerging analytical framework is presented.

2.2.1 Issues as social categorisers

Two broad research directions can be distinguished within managerial and organisational cognition literature (Stubbart, 1989; Löwstedt and Melin, 1995). The first studies individuals and, to some extent, small groups of individuals. The emphasis here is often methodological and the input in the understanding of organisational processes is low (Schneider and Anglemar, 1993; Stubbart, 1993; Löwstedt and Melin, 1995 and Meindl et al, 1996). Some of the most contributive ideas from this research have been presented above. However at this point the intention is to present the second stream of literature that focuses on organisational cognition. In the following, the concept of sensemaking, as developed by Weick (1979, 1995); Gioia (1986); Gioia and Chittipeddi (1991) will be used as a frame to discuss the collective level of cognitive processes as well as a bridge to the individual and collective cognitive processes. Sensemaking emphasises the individual as an active agent. An agent that makes sense of incoming stimuli, by relating it to a frame of reference. This interpretative phase is one of the phases in the sensemaking process. This may follow actions taken or it may be preceded by actions. The entire process of interpretation, action and the development of knowledge structures are covered within the concept of sensemaking. Sensemaking describes a process. Interpretations, on the other hand, only focus on the outcome, the interpretation. Moreover interpretations tend to assume that "something is there, a text in the world, waiting to be discovered or approximated. Sensemaking, however, is less about discovery than it is about invention." (Weick, 1995:13)
In this argument, Weick follows the discursive psychologist and avoids some of the criticism directed towards the computer as the dominating information processing metaphor. He instead emphasises the viewpoint of the social constructionist (Hellgren and Löwstedt, 1997). Social reality is not only interpreted by humans, it is created in the actions taken by humans. Following the discursive psychologists the emphasis lies on the sociality of sensemaking. Sensemaking primarily takes place when people interact and communicate. Interactions, however, are part of a bounded process, i.e. a structured process (Weick, 1995:51-53).

A large number of concepts developed to describe the shared belief system, emerging from sensemaking processes are mentioned in the introductory section (section 1.2). Pursuing this, Weick (1995) introduced the concept of frame. It is argued that sensemaking needs three elements, a frame, a cue and a connection. The frame is categorised experience. Cues are, in the terminology used earlier, synonymous with an object. Finally a connection combines these two, by offering a suggestion of how the frame and the cue are related. The parallel to the definition of beliefs presented earlier are obvious. Beliefs as "understandings that represent credible relationships between objects, properties or ideas." (Sproull, 1981). Frames are, in this respect, to be seen as shared beliefs representing both an object in ongoing sensemaking and the outcome of the process. Frames are thus a construction of the sensemaking process as well as the objectified product of such a reification process.

Following this approach the relativity of frames to time and space are emphasised. If organisations are used as the unit of analysis, frames are, according to Czerniawska-Joerges (1991), regarded as nests of collective actions, emphasising the communicative aspect of organising;

"If the communication activity stops, the organisation disappears. If the communication activity becomes confused, the organisation begins to malfunction. These outcomes are unsurprising because the communication activity is the organisation." (Weick 1995:75)

---

9 The concept is borrowed from Goffman (1974). Goffman implies that a frame stands for "the structure of context" (Weick, 1995:51). Thus frames are structuring sensemaking processes.
The communicative process is a process of social contacts. It is within the activity of communication that social reality is created. Focusing on the communicative processes Salzer (1994) describes the shaping of identity in IKEA. In this description, top-down communication from management is detectable in, for instance, training courses, the employees handbook, the "IKEA Way" seminars and the written corporate saga (cf Clark, 1972). However, of great importance is also the informal network of Swedish managers who constitute the international network between IKEA stores.

"This group of Swedish managers forms a rather informal network. The same names turn up everywhere. They know each other, they have worked together, and they have connections with the managers in Älmhult and Humlebeak (Head offices). It is like a "bombers’ crew", they explain." (Salzer, 1994:181)

These are examples of the ongoing attempts from management to communicate meanings, and thereby frame the reality of organisational members, which occur in all organisational settings. In the IKEA example, Salzer found a group of managers who were extremely aware of this process. This, whether intentional or not, takes place in all organisational settings. But communication is not only a top-down process, after studying IKEA outlets in Sweden, France and Canada, Salzer also shows how communication within the outlets and between employees form alternative frames within the organisation.

One way to understand and interpret the content of ongoing communication in organisations is offered by the "strategic issue theorists". Focusing on top executives in organisations, Ansoff (1980) and Dutton et al (1983) came to the conclusion that there is an "array of ambiguous data and vaguely felt stimuli" (Dutton et al, 1983:307) existing in organisations. Stimuli that is categorised and thus structured by top executives into focused issues - issues that are perceived as strategic. The link to the categorisation theories reviewed earlier is obvious. To create order in a massive stream of unstructured information, the information must be categorised into strategic issues.

What information enters the organisation - how this information is ordered - the number of strategic issues dealt with in the organisational debate - and the way the issues are interpreted, are questions discussed
in an extensive research programme initiated by Dutton and colleagues (cf Dutton et al, 1983; 1993). However, strategic issues have also been the subject of interest from other researchers (Kingdon, 1984; Thomas and MacDaniels, 1990; Langley et al, 1991; Camillus and Datta, 1991; Hellqvist et al, forthcoming).

Issues are constructed by individuals, but the organisational context is of importance in understanding the construction process. Dutton (1988) argues that the organisational frames and organisational strategy function as door-keepers. Which new issues are allowed to enter the agenda of top executives are determined by the strategy in use and the shared beliefs in the organisation. But the use of the term "constructed" also implies that information is portrayed in a specific way. Dutton (1993) argues that the constructuring process is a process of building, devising and forming.

"The constructuring process describes individual and collective action which imbues an issue with meaning and legitimates it as an organisational issue." (Dutton, 1993:198)

Constructing is thus a social process very similar to the concept of sensemaking. In the constructuring process the organisational frames are at work (Dutton, 1993). An investigation confirming this proposition is made by Dutton and Jackson (1987; see also Jackson and Dutton, 1988). In their study they found that the labelling of issues such as; opportunity or threat; controllable or uncontrollable; positive or negative, were of utmost importance for resolving issues in the organisation. The relationship between the organisational frames and the nature of the issue was thus of great importance.10

However, issues do not develop without individuals becoming involved. Dutton (1988) uses the term ‘issue sponsor’ to stress the fact that some individuals feel for, and encourage engagement in specific issues. Obviously factors regarding their level of engagement, formal position and other influential factors (for instance the ability to create powerful coalitions) allow individuals to advocate the importance of any issue, and ensure it will be entered in the organisational debate.11

---

10 The labelling of issues is further discussed in chapter 3.
11 Walker (1977) uses the term “skillful entrepreneurs” to describe these issue sponsors.
Dutton and her colleagues are thus opening an interesting perspective in the study of shared belief systems. The existence of strategic issues - the nature of these - and the study of issue processing, are according to this approach, a method in which shared belief system can be studied in action. Increased understanding of shared belief systems is indicated by Dutton (1993). In this article, she notes the importance of the connection between organisational issues and the institutional context. The connection of specific issue to wider problems, trends within the industry and other contexts is seen as important for the legitimisation of an issue in the organisation.

"Legitimated societal issues provide valuable hooks that issue sponsors can use to hang organisational issues which they wish others to recognise and support." (Dutton, 1993:215)

As illustrated in the following theoretical model, Dutton et al note the importance of the outer context, but focus upon the internal organisational context in their research programme).

**Figure 2.1. Conditions favouring the construction of opportunities in organisations**

---

12 See Pettersson et al, 1993 for an empirical illustration of this proposition.
Müllern and Östergren (1995) develop the idea of the relationship between organisational and institutional contexts by arguing that issues found in the wider organisational field have a distinct impact on learning processes in the focal organisation. After studying two organisations they identified a relationship between the stability of the industrial context (in their terms “organisational fields”) and industrial issues on the one hand, and the level of stability in organisational learning on the other hand. As Müllern and Östergren focus and develop knowledge about learning in an organisational context, they suggest that further research should also focus on the role of industrial contexts in order to develop an understanding of organisational learning and strategic actions.

In the above, and in the introductory chapter, the existence of an industry specific context in which industry wide issues reside was stressed. It was also stressed that industrial wisdom was of importance to understand organisational behaviour. Thus, the industry context can be seen as a distinct and vital part of the wider institutional context framing organisational issues, as discussed by Dutton, Müllern and Östergren above.

Examining clusters of companies as a unit of analysis, Porac et al, (1989 and 1992) follow the ideas proposed by the issue theorists above. They propose that industrial wisdoms surface in three sets of issues, centred around industrial boundaries, reputational interests and matters of strategic importance for the whole industry. Industrial boundary issues focuses classification and identity. Which companies belong to the industry? What products and needs are fulfilled by industry participants? What substitutes exist? Are these substitutes a threat to the industry members? Which organisations compete within the industry? These are some of the questions raised when industry boundaries are examined.

Abrahamson and Fombrun (1994) argue that boundary homogeneity is possible to measure as perception of the level of direct competition between any two organisations. Reputational issues focus on the organisational rankings within a specific industry. Fombrun and Shanely (1990) study reputation from a signal theory perspective. The focus lies on the underlying attributes used to signal reputational categorisations among organisations. Financial status, charitable
contributions, media prominence and advertising efforts are identified as some of the most important activities used by organisations to signal reputation. Finally, strategic issues within the industry are important determinators of industry shared beliefs (cf Huff, 1982).

What are the dominant trends? Which issues are most likely to change the competitive environment? How should industry participants react to these changes? Dutton (1988) Abrahamson and Fombrun (1994) and Porac et al (1989, 1995) all propose that the shared perception of issues is an important determinant of industry membership.

Communication processes at the industrial level have not been examined to the same extent as those at the organisational level. Interlocking directories is one way to localise channels in which strategic issues (and thus beliefs) are shared among top executives of organisations. Research concerning these interlocking directories is however scant and tends to focus on the quantity of these links, rather than the content and meaning of them (Pettigrew, 1992a). The existence of industrial trade magazines, industrial investigations and specialised conferences are indicated as further ways in which issues can become spread. Melin and Melander (1996) introduce the term "administrative organisation of an industry" to stress the importance of trade associations, industrial research organisations, purchasing organisations and similar arrangements, to enhance the creation and spread of beliefs. Ahrne (1994) stresses this point by differentiating between ‘ordinary’ organisations and organisations in which the members are other organisations. He argues that the task of the latter is to spread ideas, standards and rules.13 An example of this type of organisation are trade associations described by Pfeffer and Salancik (1978) as clearing houses for information, means to exert political influence and facilitators of co-ordination among members. Furthermore consultants are often regarded "as travelling merchants, with their kits of tools for producing action through meaning” (Czarniawska-Joerges, 1990:149).14

---

13 Meyer (1994) focusing on this kind of organisations, launch Mead’s term “other” to describe organisations that are not actors but instruct and guide self-interested actors in a wide variety of matters.

14 As described in chapter one the research on collective strategies (Astley, 1984) focus on interactive arrangements in industries. Moreover in the political science tradition authors such as Sreeck and Schmitter (1985); Pestoff (1987); Campbell et
Social categorisation can, so far, be summarised as the process of communication in which the issues are the content. In normal life, individuals interact and communicate, and they take part in any ongoing industry debates. By doing this they are using their categorisation skills to emphasise distinct issues in contrast to ambiguous data inputs. Issues emerging in several companies at the same time, and raised at industrial conferences and meetings, are considered to be industry wide issues. Furthermore in the communication and ongoing categorisation of these issues sensemaking processes take place.

### 2.2.2 The qualities of the shared belief system

In the above the focus has been on the process of issue formation. Issues emerge as communication processes taking place in organisational and industry settings. The term "frame" has been used to indicate that the flow of issues are constrained by certain stabilising conditions. The nature of these are, however, not yet fully determined. Moreover, earlier research considered organisations and industries as settings without any previous history. They exist; they are; and the flow of communication decides which issues are given priority. This does not fully explain why and how issues emerge in the first place, and how existing issues are related to contextual conditions. With reference to the introductory discussion concerning the dual role of shared belief systems (see section 1.2) it appears that the relation between industrial wisdom describing contextual conditions and the ongoing flow of issues needs to be developed. This could lead to a deeper understanding of the correlation between issues and the industrial wisdom represented by situational and institutional beliefs.

The role of shared belief systems as a factor in both constraining and enabling action is frequently used in managerial and organisational literature, even if the concept of shared belief systems as constraints or enablers is often taken for granted. To initiate a discussion regarding this dual role, two well known theories illustrating the constraining al (1991) and Kenis (1992) study interactive arrangements. Both these research traditions add important insights to the understanding of how relational ties are constructed and sustained in industries. Such industry wide arrangements are further discussed in chapter six.
nature of shared belief systems in industrial and national contexts are reviewed. These theories are chosen as they both examine this question from the social constructionist perspective (DiMaggio and Powell, 1991; Whitley, 1992:41).15

The theory of isomorphistic forces is the first example (DiMaggio and Powell, 1983). These forces shape industries or industrial fields by three mechanisms - namely, coercive, mimetic and normative processes. These processes respond to the need for legitimacy, uncertainty reduction and professionalisation, respectively. In the coercive process, more or less determinative regulations, i.e., laws and general trade rules, force the actors to homogenise their organisations, behaviour and ultimately their beliefs. The mimetic process compels actors to copy more influential or successful models of acting and thinking. Finally, the normative process stems primarily from professionalisation in the educational system. The desire to attain legitimisation among occupational groups is the basis for the construction of homogenous or professional means of performing and regarding work. Thus, job specialisations within industries emerge.

The assumption is that the three broad social mechanisms will appear in all environments. However, the strength of forces vary. When the analytical unit is an industry or industrial field, the dependence on single sources of support, frequent transactions with the state and a high degree of professionalisation increase the influence of these. Ambiguity in goals, frequent interactions and restricted availability to alternative organisational models also increase the homogenisation of organisations in industries. The main point is, however, that the combined mechanisms determine the freedom to act within the industry.

The emphasis of this model, as in most operationalisations following the "new institutionalist" mode of research, is placed on the situational similarity of actions. The emphasis on action is stressed in the definition of the new institutionalist perspective,

"This perspective emphasises the ways in which action is structured and order made possible by shared systems of rules that both constrain the inclination and capacity of actors to optimize..."

15 "Social constructionism" is a broad concept the meaning given to the concept in this project is further discussed in chapter three.
(DiMaggio and Powell, 1991:11, emphasis added).

However, a further argument is that the mechanisms and processes suggested do not only have behavioural implications. An argument has been developed to emphasise the link between action and thinking (cf. Jepperson, 1991; Scott, 1994). Action and thinking are closely interconnected and it is possible to assume a homogeneity of thinking, when patterns of actions are recorded.

"Environments, in this view, are more subtle in their influence; rather than being co-opted by organisations, they penetrate the organisation creating the lenses through which actors view the world and the very categories of structure, action and thought." (DiMaggio and Powell, 1991:13)

In this conceptual idea DiMaggio and Powell focus on the industry or groupings of organisations as the unit of analysis. Distinct differences between industries can, according to them, be identified. The second theory takes a slightly different view on forces that constrain industries. Richard Whitley (1990, 1991, 1992a and b) introduced the concept of the business system. The study of a business system:

"focuses on the how firms and markets are constituted differently in different environments and form distinctive systems of economic coordination and control." (Whitley, 1992a:271).

The strength or the evidence of a distinct business system is dependent on how dominating institutions and cultural beliefs and values overlap each other. If cultural values and nation states overlap, the chance that a distinct business system will emerge is high (Whitley 1992a). In Whitley (1991), dominating social institutions and cultural beliefs are exemplified in a study of East-Asian business systems. The

16 Whitley uses both the terms business system and business recipe in the 1990, 1991 and 1992b articles. See for instance 1992b:137. In the 1992a (267ff) article he however emphasises the difference between the business recipe and the business system. The former focuses on a micro enactment approach and the latter implying a macro approach.
institutional contexts are divided into three: (a) relations to the authorities, (b) trust, reciprocity and loyalty and (c) political and financial systems. Cultural beliefs and values are not given much attention by Whitley, but the role of family values are, however, seen as an important cultural variable in his 1991 article. In East-Asia the emphasis on family identity, relationships and authorities shape a distinct set of values and beliefs which are in sharp contrast to those of the western world. As cultural values tend to be similar in the East-Asian countries studied (Japan, Korea, Taiwan and Hong Kong), their cultural values distinguish these business systems as a separate unit in relation to the Western world.

Examining the business system Whitley highlights personal authority, owner domination, significance of formal co-ordination and control procedures, managerial style, employment commitment, business specialisation, evolutionary strategies, relational contracting and long-term intersector co-ordination as important factors to describe and compare (Whitley, 1991). Hellgren and Melin, (1992) use Sweden to exemplify the concept of the business system described above. The Swedish system can be summarised by export dependence; product specialisation; influential and committed owners; autocratic authority; collaboration; and vertical integration. The Swedish system is highly dependent on a small number of very large organisations, which are active on the international scene.

In Whitley’s framework, cultural values, institutions and business systems only change slowly during a long period of time. They thus represent stability, and a base for managerial actions (Whitley, 1992a). The freedom for managerial action is limited in this perspective.

"Thus, business systems do not preclude firms developing deviant characteristics, especially in pluralist societies, but they do typically set limits to such deviance, especially where related institutions are dominant and firmly establish particular rules of the game.” (Whitley, 1992a:275)

As initially emphasised, both theoretical frameworks suggested by DiMaggio and Powell (1983) and Whitley (1992a) emphasise forces that constrain actors. However when we examined the individuals ability to categorise, strong emphasis was placed upon the role of belief systems in enabling action. As beliefs are developed and
remembered, the individual is able to increase his store of what is known as experience and knowledge - qualities that often are seen as enabling action.

This interplay between constraining and enabling qualities is also considered by Hellgren and Melin (1992) as they view industrial wisdom as both framing and ruling. Industrial wisdom describes the shared belief system that comprises reality as it appears to members of the industry. But industrial wisdom also covers the constraining qualities of the shared belief system as it describes the "rules of the game" within the industry. These rules set the boundaries for the members of the industry. Within these boundaries certain strategic actions are possible and the industry members are thus guided to appropriate solutions. Thereby, industrial wisdom provides guidance for the future - the way forward is signposted.

Pursuing this discussion we can return to the two perspectives of shared belief systems illustrated by Spender (1989) and Phillips (1990) in the introduction. As previously discussed, Dutton et al (1983) argue that issues are constructions from vaguely felt stimuli and oriented towards the future, but that they can also constitute threats, opportunities and possible ways of coping with the situation at hand. The issues and the inherent situational beliefs that the issues are built upon, are, however, only one part of the shared belief system in the industry as institutional beliefs illustrated by Phillips, 1990 must also be included. Dutton (1993) who focuses on the organisational level, expresses the relationship between issues and organisational systems of shared beliefs in the following manner.

"While organisational information processing capacity furnishes raw material for issue construction, the organisation’s paradigm provide the ideas, world-views, cause maps or metaphors that are used to bracket, interpret and legitimate issues” (Weick, 1979).” (Dutton, 1993:212)

Entailed in the dual perspective of shared belief as enabling and constraining is the systemic character of beliefs within groups of actors. Actors are parts of shared belief systems that both constrain and enable. A shared belief system describes both situational beliefs, often related to future oriented strategic issues, as well as institutional beliefs of a more fundamental character.
Following the idea of Lyles and Schwenk (1992) who emphasise the core and the peripheral features of organisational knowledge structures (the organisational shared belief system), the situational beliefs emerging within strategic issues, represent the periphery. They represent the way to react to a specific threat or opportunity of importance for future development within the industry at any given time. However, the ways in which the problem is handled, the labelling of the issue and the very existence of the issue emanate from institutional beliefs within the industry, or, in the terminology of Lyles and Schwenk, the core features of the knowledge structures.

"We propose that the core set provides the most basic elements of the organisational knowledge structure. It consists of the beliefs on which there is the most consensus among organisational members." (Lyles and Schwenk, 1992:160)

The proposition made by Lyles and Schwenk is supported in other lines of research. On the individual level, Bem’s organisation of beliefs in primitive and higher order categories, discussed in section 2.1, apply the same theoretical base. So do Berger and Luckman (1966) when they discuss first order and second order socialisation. On the collective level, Argyris and Schön (1978) focus on first order and second order learning, distinguishing between a core, more basic knowledge, and a peripheral and changeable knowledge structure. In a similar way Gagliardi (1986) distinguishes between primary strategies and secondary strategies when studying cultural change. Primary strategies are not expressed explicitly according to Gagliardi but they are closely linked to the basic values of the organisation. Secondary strategies are more specific and instrumental. Finally, on the meta level Kuhn considers the existence of core knowledge in research that is related to more easily questioned knowledge structures under development (Kuhn, 1970).

In the attempt to develop the theoretical conception of a division between institutional beliefs and situational beliefs on the industry level, Huff (1982) distinguishes between taken-for-granted assumptions and more fluid concepts and frames.

"More broadly, the industry is defined by shared or interlocking metaphors or world views. Behind the concepts, and the frames which
link them into larger wholes, are the taken-for-granted assumptions which most describe a cohesive industry character." (Huff, 1982:125)

Huff argues that situational beliefs tend to be more "fluid" over time. This argument is complemented by Ranson et al (1980) who argue that institutional beliefs, or, in their terminology, "interpretative schemes" "generate some continuity of understanding in changing interactive circumstances" (Ranson et al, 1980:5). A continuity separated from the ongoing attempts to recognise and handle social situations, i.e. interactive circumstances. Support for this distinction is provided by Leblebici et al (1983) who carried out a study during a five year period. The results of his study provide support for this distinction between institutional beliefs, describing deep seated shared values and situational beliefs, enabling social actors to cope with the ongoing flow of issues.17

In summary, a shared belief system both enables and constrains action, in that emerging issues are related to a shared belief system in two ways. Issues exist partly as a consequence of the shared belief system. Specific issues are thus the subject of influence by the shared beliefs. On the other hand, a specific issue can also lead to a potential change in the shared belief system. Dividing the shared belief system into two parts, one focusing more on institutional beliefs and one focusing on situational beliefs related to specific issues, is a means of relating the shared belief system and developing issues. Consequently we are given the opportunity to theorise about the existence of, on the one hand, more stable institutional beliefs, and on the other more flexible situational beliefs, related to the ongoing debate within the industry. A bridging that is made possible by the use of the concept of industrial wisdom.

One way to achieve this bridging and to elaborate on the role of institutional and situational beliefs is to discuss the origin of issues. This far, issues have been seen as postulated. Issues develop as

17 A further example of how useful the separation between situational and institutional beliefs is reported in Davis (1984). Davis use the terms "guiding beliefs" and "daily beliefs" in analysing cultures and the link between culture and management. Guiding beliefs are the fundamental roots and principles of the organization, daily beliefs on the other hand are described as "situational and change to meet circumstances" (1984:4).
changes occur. To discuss the formation of issues and the relation between strategy formation in organisations and in industrial wisdom, we must now expand the framework of the subject of change. This will be done in the following two sections. In 2.2.3 the concept of context will be discussed, as the existence of different contexts is vital to an understanding of the origins of change. Moreover the introduction of three dimensions in this section is used to identify the focal context, a context of importance as the origins of change are further discussed in section 2.2.4.

2.2.3 The shared belief system and contexts

Reviewing DiMaggio and Powell (1983) and Whitley (1992a), two distinct analytical levels become apparent, i.e. the industrial and the national. In the introductory chapter, it was stressed that shared belief systems become apparent at different analytical levels (the organisation and industry were examined). Fombrun (1986) and Pettigrew and Whipp (1991), propose three analytical levels as being of interest in management research; the societal corresponding to the concept of a business system as seen by Whitley in the above; the sectorial corresponding to the industry or industrial field as presented by DiMaggio and Powell; and finally the organisational level (discussed in section 1.2).

In the following (section 2.2.4), this contextuality of shared belief systems will be used as the starting point for a discussion about conditions that induce change, as the concept of multi-contextualism offers a way to address the absence of research dealing with what Pfeffer called "the negotiated environment" (see section 1.2). Following Benson (1977:4), the "social world always constitutes a context which influences the ongoing process of production". The dominating approaches to the definition of defining shared belief systems can be summarised as follows.

Figure 2.2. A multi-contextual world\textsuperscript{18}

\textsuperscript{18} The levels used in this figure can by no means be understood only in hierarchical terms. That is, the business system is no more important than the industrial wisdom in a given setting. Contexts are more to be seen as intertwined social settings
This figure, inspired by Huff (1982), emphasises that individuals can be seen in several contexts and that shared belief systems are internalised. In this figure however, only a limited number of the possible contexts are described. Research has shown the importance of focusing on sub-units within organisations as the base for complementary contexts (Melin, 1991; Sackman, 1992; Trice, 1993; Alvesson, 1993). Contextual groupings also emerge in other settings. Glete (1994) uses ownership as the base for contexts, and among others Benveniste (1977) and Freidson (1986) use professions as the starting point for contexts. However, contexts related to the private life of the individual must not be forgotten, i.e., family, sports clubs and long friendships.

The number and variety of contexts apparent in almost all social situations, put into question the value of the concept. In reviewing literature, it often seems that "context" is used as a residual. Things which cannot be explained are seen as "dependent on the context"! Previously it has been argued that contextuality emerges as increased communication and interaction take place. This idea is supported by many system theories which emphasise relational and political interactions as a base for defining contexts (see, for instance, Hammarkvist et al, 1982; Karlqvist, 1990; Hellgren and Stjernberg, 1995; Easton et al, 1993). In this perspective, buyer/seller relations, ownership relations, alliances and other relational arrangements are used as a starting point in defining the context. Giddens, 1989 takes an explicit relational view of the existence of systems (i.e. a context).

where importance is determined by complex social interactions.
“...a social system refers to the patterning of social interaction and social relationships across time and space.” (Giddens, 1989:254).

However, other departure points in the identification of contexts exist. In industrial economics, as postulated by Bains (1959); Scherer, (1980) and Porter (1980), the emphasis is on what can be regarded as infrastructural characteristics (Fombrun, 1986; Child, 1988b; Hellgren et al, 1993). In this view, similarities in products produced, geographic distribution, markets served and/or technology used are some of the features used in the definition of industries. Finally, homogenisation of beliefs and values can be used to define contexts (Adler and Brorys, 1993; Reddy and Rao, 1990; Blackler, 1992) In research focusing on cognitive similarities, this has been the guiding idea (cf Porac et al, 1989, 1995; Calori et al, 1992; Levenhagen et al, 1993; Sahlin-Andersson, 1996). Studying issue formation and the relation to the individual, the group and the organisation level, Thomas et al (1994) conclude that issues are dependent on the context in focus, i.e. contextual specific value systems influence the issue interpretation. Huff (1982:125) elaborating on this suggests that "More broadly, the industry is defined by shared or interlocking metaphors or worldviews."

The above quotation emphasises the importance of shared beliefs but also stresses the importance of language when defining contexts. The specific concepts or terminology used in any social setting are the result of an ongoing socialisation process in which an identity is constructed (Whipp and Clark, 1986). Language is vital to the identity building process, as it represents the most important communication method that human beings use. Thus, interaction is mainly a question of the use of language and the sharing of beliefs and worldviews. Berger and Luckmann (1966:140ff) use the concept of "reality-maintaining" when they discuss the role of language in the construction of social realities.

"Words are a part of action. Socially built and maintained, language embodies implicit exhortations and social evaluations. By acquiring the categories of a language, we acquire the structured "ways" of a group and along with the language, the value implications of those ways." (Pettigrew 1979:575)
This study follows the ideas cited above, and contributes ideas corresponding to those developed by social psychologists’ attempts to study the formation of groups (Janis, 1982, 1989; Brown, 1988; Stiwne, 1992) as well as the theories of structural formation developed by Ranson et al (1980); Tichy (1983); Fombrun (1986); Child and Smith (1987); Child (1988a and b) and Räsänen and Whipp (1992).

Context is seen as emerging from homogenisation of three analytical dimensions. Infra-, relational- and belief structures often forming a circular relationship in which the homogenisation in one type fosters homogenisation in the other two, and vice versa. Organisations that interact often homogenise their infrastructures and their values, but not necessarily in that order. Any definition of the starting point of this process can only be undertaken on an empirical basis. As an example, Porac et al (1989) use the term ”enactment process” to describe how an identity (i.e. a belief structure) is sustained by the choice of actions undertaken. The Scottish knitwear manufacturers defined themselves as producers of high quality, fully-fashioned classic knitwear. Implicit in this definition are choices of distribution channels and consumer segment targets - choices that affect market information received by the producers (i.e. homogeneity in the relational dimension). In turn, producers strive to improve their image as high quality producers and emphasise investments to enhance that image (i.e. a homogeneity in the infrastructural dimension). Accordingly, homogeneity in belief structures is maintained. This circle works as a self-fulfilling prophecy as long as it is not interfered with (Porac et al, 1989:409).

This process of homogenisation is also the reason why the concept...
of institutional beliefs was introduced. Situational beliefs expressed in the ongoing debate in the industry are related to institutional beliefs. Beliefs that are deeply rooted and thus are also often expressed in more materialised forms, i.e., in infrastructural and/or relational dimensions. The process of institutionalisation:

"...is the process by which a given set of units and a pattern of activities come to be normatively and cognitively held in place, and practically taken for granted as lawful (whether as a matter of formal law, custom, or knowledge)" (Meyer et al, 1987:13)

In the following figure, the relationship between the three structural dimensions is described. As indicated by the arrows, the relationship is not to be seen as casual even if Levenhagen et al (1993) argues that in emerging industries it seems that the formation of beliefs tends to precede the development of infrastructural and relational structures.

According to Scott (1991:181) belief systems are "embedded in the cultural infrastructure". Stinchcombe (1965) stresses that emerging industries are imprinted by the wider cultural conditions in their formation process. Studies by Levenhagen et al (1993), Powell (1993), Thornton (1995), are some examples of how emerging industries can be described as initially imprinted by a wider social belief system until

**Figure 2.3. The ongoing enactment of contexts - and thus the inherent production of institutionalised structures**

![Diagram showing the relationship between institutionalised structures](image_url)
they gradually enact a context of their own. That is, a process in which a homogenisation in belief-, relational- and infrastructural-structures takes place. Following this development, an industrial debate emerges, in which situational beliefs are expressed. This process is most recognisable in emerging industries. As maturity develops, the ongoing process is occasionally disturbed. In the following sections these "disturbances" will be further discussed.

2.2.4 The shared belief system and change

The proposition of multiple contexts has been attractive to students of strategic change (cf Fombrun, 1986; Leavy, 1991; Miles R. H. 1982). Pettigrew (1985) summarises the quest for multi-contextual studies.

"It is in the dialogue between trends and forces in a multilevel and changing context, and the relationships, actions, and initiatives, between groups and individuals seeking to adjust social conditions to meet their ends, that much organisational change - its origins, mechanisms, and forms - can be located and understood." (Pettigrew, 1985:37)

Hence, the assumption of a multi-contextual world can be used as a basis to understand how actors develop context specific resources, enabling them to initiate change. Whittington (1992) accuses the majority of organisational theorists (including students of strategic management) of not paying enough attention to the implications of the multi-contextual world.21 Leavy (1991), Miles R. H. (1982) and Meyer et al (1990) can be used to illustrate this criticism.

Leavy's (1991) study of the Irish dairy industry is an excellent example of the three contexts discussed above (the organisation, the industry and the society). His point of departure was a change in national policy and he pursues his examination of the effects of that change as it reaches the industry and organisational level. Using this

21 Pettigrew describing the quest for multi-contextualism is one of those that Whittington criticizes for not maintaining this aim in empirical research.
approach, the change derives from the societal level; and the industry and organisational actors in disagreement with the change constitute the constraints. Leavy finds that economic, political and cultural processes are the links between the three levels (compare the three types of structures described above). He also identifies what he calls "the systemic pressure". This pressure builds up during a considerable period of time, finally resulting in changes taking place. Change however occurs rapidly as soon as this systemic pressure reached its critical mass. When the opposition, represented by the industry, became disunited, changes took place quickly.

Miles R. H. (1982) uses six large tobacco companies as his unit of analysis. His starting point is also a change at the societal level. He proposes three strategies used by these organisations to respond to changes imposed by regulative agencies. The domain defense strategy was to increase co-operation in order to increase the industry’s legitimacy as seen by the public. A basic part of this strategy was to increase efforts in information and lobbying activities. Domain defense is the only strategy in which a co-operation among the actors is recognised. The other two strategies were domain offense and domain creation, both seen as strategies emerging from independent actions by the organisations.

In Miles analysis of the American tobacco industry, the main emphasis is on the societal and organisational levels. By means of an intense study of organisational adaptation to environmental changes, he identifies patterns of actions. He does not however explicitly discuss the interorganisational processes in the tobacco industry. Thus, the importance of the industry level is down-played. There is, for instance, no theoretical discussion following the information that the six companies were linked in an "classical oligopoly" (Miles R. H. 1982:33). An oligopoly in which presumably communications had been established and the rules of the game had been defined and structured many years ago.

Meyer et al (1990), who examined the rapid changes in US hospitals, agrees with Fombrun (1986), that the industry level in itself is an important unit of analysis in the study of strategy. When examining the rapid changes in US hospitals, they are able to identify patterns of actions that are only understandable when examining the totality of organisations. One example of such results clarifying the understanding of rapid change is the growth of inter-organisational
networks within the hospital sector. But generally they neglect the scope available for different actions on the sector level. Nothing is mentioned in this study about the sector being organised in associations and lobby groupings. No consideration is given to the existence of communicative links between different organisations.

In all these three studies changes are seen to emanate from a wide social environment. They focus upon the adaptation of these changes within the system, (the industry or organisational system), and are therefore classical examples of how contextual similarity in the infrastructural dimension is considered as being the main reason for similarity of action and thus the development of shared belief systems. The organisation is, in this perspective, only an adaptive system adjusting to external influences. An industry is regarded as being an aggregate of organisations with few or no connections. The aggregate is seen as having no inherent resources enabling an action capability, i.e. the roles played by trade associations, joint research organisations and other forms of collaboration are ignored. Hence, the industry is given no contextual importance. Leavy (1991) and Miles R. H. (1982) view the collective actions taken by industry as only a defence mechanism opposing or delaying the implementation of hostile changes. The role that the industry and its collective industrial wisdom play in resultant actions is not considered. Thus action capability at the industry level is seen as of minor importance when studying the formation of strategies. Collective activities undertaken in the name of trade associations, joint research organisations, or collective information efforts are given little importance in understanding how strategic action take place.

As discussed in the introductory chapter, there is an increasing interest in research that argues otherwise and views the industry as an important context in order to understand strategy formation at the company level (cf Hirsch, 1975; Johnson and Thomas, 1987, Calori et al, 1992) - a line of reasoning also followed in this study. Moreover, the above research mainly discusses changes caused by external shocks. Following requests made by Melin (1985) and Pfeffer (1987) for studies of the context specific debate leading to a negotiated environment (see section 1.2), this is a rather simple way of describing the reason for initiating change. Regarding the contextualisation of shared belief systems, there would appear to be reason to examine more closely the factors involved in strategy formation processes,
which include both the argumentation and justification dimension and that of action outcome (Brunsson, 1989). This could allow a wider perspective and perhaps avoid the deterministic concentration that exists in previous literature.

Following Sztompka's (1991) conceptual division between actor and agency, it is here proposed that a further understanding of the relation between change and the shared belief system at the industrial level can only be achieved by separating actors from their ability to take action. An actor can be an individual, a group of individuals, an organisation, a social movement or an industry. All social groupings can be named actors and all of these have potential influence. But the overwhelming majority of actions maintain the status of the shared belief system. They are, using Hellqvist's (1997) terminology, to be seen as "building routines". Focusing on strategic actions, the capability of actors to bring about changes in any specific context is considered. Actors having the power to initiate changes in specific contexts possess certain and definable characteristics.

"...they possess some measure of autonomy, integrity, relative freedom to choose and decide. They are self-contained entities, with specific properties and regularities..." (Sztompka, 1991:89)

In the following, actors are defined as either an individual or a group. If any actor's capability to act is examined, their resources are also considered. This emphasis on the freedom of action follows Giddens theoretical ideas.

"Moreover, according to Giddens, the human need for 'ontological security' leads actors to stick to routine patterns of behaviour that unintentionally reproduce the structures of their worlds. Nevertheless, Giddens does insist on our potential to choose actions deliberately, and to carry them through effectively, even in defiance of established

22 In view of the social constructionist perspective it must be remembered that social groups e.g., companies are actors in as much as the social context legitimises individuals to act on behalf of the formal organization. Following Czarniawska-Jberges (1994) and Sevón (1996), organisations and industries can thus metaphorically be seen as "superpersons" speaking through the voices of top executives.
rules and prevailing powers - in other words, the possibility of agency.” (Whittington, 1992:696)

The scope available for choice is based on the assumption of multi-contextuality. Actors function within several contexts in which contradictions as well as similarities in systems of shared beliefs may occur (see figure 2.3 above). In these similarities and contradictions capabilities emerge. "It is by active exploitation of the tensions between divergent structural principles that managers gain their agency.” (Whittington 1992:704). This emphasis on voluntarism (i.e. active exploitation) has been criticised (cf Thompson, 1989; Layder, 1994), but at the same time is also supported (Bourgeois, 1980; Melin et al, 1983; Phillips, 1990). It is argued that strategic management research is not so much a question of absolute choice between voluntarism and determinism as it is about the degree of strategic freedom (Bourgeois, 1980:593).

The implication is that the ability to choose between beliefs is not free in an absolute sense. The point is rather that actors face options, as they experience a multi-contextual world consisting of conflicting beliefs. Pursuing the reasoning of the division between institutional and situational beliefs (in section 2.2.2) the freedom to debate and oppose the latter is obviously more apparent. Hence, institutional beliefs are deeply rooted and thus not worth debating23. Depending on the circumstances, the actor is, however, given a degree of freedom to choose standpoints in the situational debate. Harris (1996) offers an idea of how this process of choice takes place on the individual level when he argues that individuals are engaged in "mental dialogues".24

"I propose that in the social setting of organisations, individuals enact their experiences and choose to behave in response to those

23 Giddens (1984:304ff) stresses that knowledgability is important to include in every framework of change. If not, the actor consciously is aware of options available he is restricted in his choice. On the other hand if the actor is aware of the situation and the choice or choices available, he experiences a higher degree of freedom. Institutional beliefs can be said to represent a higher degree of "taken for grantedness", thus restricting options available in debates.
24 Dialogues are more or less automatic. Also as hinted above, the content is more or less consciously reflected, in the dialogue.
experiences based in large part on the outcomes of contrived mental dialogues between themselves and other contextually relevant (past or present, real or imagined) individuals or groups.” (Harris, 1996:297)

Harris emphasises that the "participants" and their views in these dialogues are of varying importance. The statement above also confirms that deep seated institutional beliefs are seldom questioned in such dialogues.

As noted above, Harris uses the concept of "mental dialogue" as an internal individual process. In organisational and industrial contexts the concept of mental dialogue can be used more metaphorically as actors take positions in the context of specific debates. Debates where issues emerge and develop during a long period of time.

Resources enabling strategic actions to be initiated are theoretically impossible to define as resources are context specific. As such they vary according to time and space. A highly valued resource in one context can thus be of less value some years later.

"It follows, then, that whether or not an asset can be considered a resource will depend on as much on the context enveloping an

25 Examples of resources are on the individual level personality, experience, relational network, intellectual capacity and so on. At the organisational level, high liquidity is often viewed as a resource to carry through strategic change, i.e. "Cash is king" (cf Barney, 1991). However depending on context, high liquidity can be of more or less value. Other organisational resources worth noting are the organisational culture and ownership structure. The bottom line is that resources enabling change are born within differentiating appearances in time and space (Miller and Shamsie, 1996). To take an example, if all companies in an industry go from low to high profits they are in the position to undertake strategic actions. However the change in profitability will not in itself provide the individual organisation with a competitive advantage as it is not unique for the individual company.

26 Reviewing the resource based literature Tell (1997) concludes that there is a great deal of conceptual confusion in this area. In this book resource is defined, in line with Miller and Shamsie above, as rare or hard to copy and enabling companies to pursue opportunities or avoid threats. Capability or action capability also discussed in the above, is used in this study in a way that resembles the definition by Teece and Pisano (1994:538). "The term "capabilities" emphasizes the key role of strategic management in appropriately adapting, integrating and re-configuring internal and external organizational skills, resources, and functional competencies toward changing environment. This quote emphasises that action capability requires
organization as on the properties of the asset itself. It is misleading to attempt to define resources independent of the tasks they are to serve and the environment within which they must function." (Miller and Shamsie 1996:539)

In summary, change is the consequence of actions taken by actors. When actors possess the capability to initiate actions they exploit resources emerging as an effect of the multi-contextual world. As actors take action or consider taking action, the stimuli for issue formation emerges. As issues become apparent, the structure of a shared belief system is in motion.

This view of change in shared belief systems is an attempt to open the possibility for the empirical analysis of strategy formation. The perspective developed here can include both radical changes in the shared belief system as well as gradual changes. This approach, as described in chapter one, distinguishes the few studies conducted at the industry level.

2.3 Analytical framework

At this point it is important to summarise the discussion and to describe the analytical framework used in the following. The perspective applied implies that issues represent a social categorisation of change. As actors possess resources and consider the initiation of actions, issues emerge.

As a result of this, issues also represent an operational methodology that depicts contextual changes. An issue represents a mode of change, as issues question stability. Hence, the shared belief system is in motion in issues. The concept of industrial wisdom includes the shared belief system within the industrial context. Thus, the concept of

both resources in the more traditional meaning as well as the ability to transform these resources into actions (cf Whipp et al, 1989). Hamel and Prahalad (1993) for instance focus upon this creative process when they discuss how management in ambitious companies are able to stretch restricted resources to build competitive advantages. The result being that companies seen as resourceful may have a low action capability due to restrictions such as weak leadership, within the organisation.
industrial wisdom includes both the more stable parts of the shared belief system; named institutional beliefs, and situational beliefs restricting possible strategic actions at any specific time within the context.

When action is taken or considered, issues appear. The ability to take action, however, is dependent on available resources and the action capability. The action initiated will result in consequences for the other actors within that specific context. The sensemaking process taking place becomes apparent in the industry debate and thus in contextual issues.

The main intention of this study was to examine the industry as a unit of analysis. As a result of the above reasoning, the following considerations emerge for the analysis of the case. The need to pay great attention to multiple contexts is of increasing importance. Following Calori et al (1992), Pettigrew and Whipp (1991) and Hellgren et al (1993) I have chosen to include information about the organisational, the industrial and the societal contexts. However contrary to the majority of previous studies, the focus is on the context of an industry. Following the theoretical proposition that industrial wisdom can be examined by issues, the choice was made to use the identification of issues per se as a methodological device (see section 3.2).

The analyses of the case are divided in three parts. In the first, chapter four, the development of the P&P industry is described. Within this a number of issues are identified. In the second part, chapter five, the issues identified in chapter four are labelled as threats or opportunities and connected with solutions. In the third part of the analyses, chapter six, attention is given to institutional beliefs. Altogether, these three parts aim to identify the industrial wisdom within the Swedish P&P industry during the period 1945-1990, thus covering the first part of the purpose of the study, "to describe the industrial wisdom".

Focusing the second part of the purpose, "enhance theories about the interaction between industrial wisdom and strategy formation in individual companies", chapter seven discusses changes in industrial wisdom during the period 1945-1990. Turning to the company level,
chapter eight deals with the interaction between industrial wisdom and strategy formation in individual companies. The formation processes are analysed in two dimensions, argumentation and justification, and action outcome. Finally, in chapter nine, the results of the study are summarised, implications discussed and subjects for future research suggested.

3. The aim of research and methodological considerations

This chapter is divided into two major parts, the aim of research and the methodological considerations. In the first, a social constructionist perspective is presented. In the second part, I elaborate on the view presented in the first part and consider technical aspects of the study.

I regard this as the most important chapter, as I wish to define and

---

28 Social constructivism is a term that refers to recent movements in arts as well as in social sciences (Schwandt, 1994). Making the linkage explicit to Berger and Luckman (1966) and the founders of phenomenology Alfred Schutz and Edmund Husserl, the term social constructionism is used in this chapter (Gergen, 1985). For those interested in an introduction to social constructionism see Norén (1995). Furthermore an excellent survey on the history of social constructionism and phenomenology is provided in Blomberg (1995). Blackler (1992) summarise the meaning of social constructionism in an elegant way: "Social order is not God-given, social traditions have no inevitability, social regularities do not result from immutable natural laws. Societies are man-made and social institutions result from the actions of those who participate within them." (1992:273).
clarify the assumptions and the practical choices that have been instrumental to this study. An understanding that is vital for its content evaluation. My proposition is that an understanding of the products of today (i.e. this study) cannot be appreciated outside their historical context.29

Illustration 3.1. Social constructionism

---

29 This point is mainly influenced by Broady (1991). In his book Broady analyses the writings of Pierre Bourdieu. Following the excellent examination of Bourdieu authorship, this book made me understand the need to always consider the context and the authors background.
3.1 The aim of research

The results of good research always contain elements of "trustworthy surprises". A "trustworthy surprise" is a difficult concept to explain. It is possible to argue that trustworthy research cannot provide any real surprises, because real surprises question prevailing assumptions, and thus are often rejected as unconvincing. Real surprises are not (at least

---

30 Many researchers have used similar terms to construct norms for good research. For instance Lindholm (1979) uses the terms explicit, relevance and expansivity, Astley (1984) uses theoretical creativity as a norm, Paulsson Freckner (1986) emphasises trustworthiness and honesty, Alvesson (1989) emphasises the search for surprises and Weick (1989) makes the paradox between trustworthiness and surprise obvious when arguing that a good theory must combine the following qualities: "A good theory is a plausible theory, and a theory is judged to be more plausible and of higher quality if it is interesting rather than obvious, irrelevant or absurd, obvious in novel ways, a source of unexpected connections, high in narrative rationality, aesthetically pleasing, or correspondent with presumed realities" (Weick, 1989:517). In the following, this obvious contradiction between the qualities of trustworthiness and surprise will be further discussed.
not initially) trustworthy!

When Copernicus presented his theory of astronomy, growing awareness of anomalies in the then dominating one existed (Ptolemaic system). The conclusions reached by Copernicus were so revolutionary that they were strongly rejected and considered as implausible by many (Kuhn, 1970:68, see also Kuhn, 1957 page 135-143). Any present day "research surprise” could not possibly have the same status as Copernicus theory. A surprise is here regarded as when the purpose, the method, the structure and/or the results provide new insights - considered relevant by the reader - relevant because they help him/her to understand and to relate to his/her own experience.

This is, however, a difficult standard to satisfy, because that which some individuals see as an original idea are viewed by others as a trivial conclusion. The only way to avoid this problem is to deliberately target a specific audience. In this study the broad aim is to surprise the most advanced audience of all, i.e. the academic community and the practitioners of management. More precisely, the aim is to complement and enrich research focusing on processual studies of change by extending common approaches in the strategic management field by the study of industry wide changes in shared belief systems. It is impossible to predict if the conclusions will meet the standards of surprise of this audience, but if this does happen, it will, hopefully, lead to a climate for increased learning (Spender, 1989).

"Individuals in the audience must be sympathetic and see surprise as evidence of something new. As one surprise follows another they begin to reconstruct the evidence and new meaning emerges. Eventually they have a novel comprehensive rationality at their disposal. They have learnt.” (Spender, 1989:86)

Surprise is, however, only one part of the aim. The surprise must also be trustworthy. Trustworthy in the sense of being convincing and relevant, i.e., the surprise must be convincing, and have relevance to the audience addressed. One part of building trustworthiness is therefore to relate new research to previous findings in the same field. That is, to use as a point of departure research literature focusing on similar areas of interest. Clarity of reference regarding sources used and giving rightful credit to those upon which your arguments and
conclusions are based, are vital features of good scientific research.

The contradiction that can almost be seen as a paradox is, by now, obvious in the statement "trustworthy surprises". Surprises question the present state of knowledge, experience that previously has been regarded as relevant and convincing, i.e. trustworthy. So, research that is both trustworthy and surprising must be based on verified knowledge at the same time as introducing some previously unconsidered factor. Gergen (1982) illustrates the dilemma a researcher is faced with when he ventures outside the known parameters, the normal procedures. When he applies a new perspective, uses a new unorthodox method or presents an interpretation in deviance from the obvious, he is questioning established preconceptions.

"Should the investigator’s interpretation seem at odds with common sense, with what ”any rational scientist” would conclude, then the research becomes a prime target for rejection. It becomes virtually incumbent on the evaluating agent, as a representative of a sane profession to point out the ”obvious alternative” interpretation. Deviant interpretations are thus relegated to oblivion. This rejection may be accompanied by a sense of self righteousness, buttressed as it is by a view of proper scientific procedure." (Gergen, 1982:76)

On the other hand, the researcher is obliged to present new findings. An article, thesis or paper that only rewrites the same conclusions drawn by others, will probably not be regarded as ”valuable” research. The point is that surprises can only emerge from the accepted. Surprises have to be in contrast from things already ”known”, as a new flower seeking nourishment from fertile ground. Without current conceptions (i.e. the well-known or the taken for granted), the surprise would be no surprise. There would simply be no frame within which researchers could debate. Without a body of knowledge, shared intersubjectively by human beings, any innovation of new ideas could not occur. The intersubjectively objectified is the mirror we use to reflect innovation. So, to understand innovative thoughts and by that be able to identify surprises, we first need to understand the taken for granted, the intersubjectively objectified (Berger and Luckmann, 1966:24).

An excellent example of the contradiction in the concept of
trustworthy surprises is provided by Huff and Reger (1987), reviewing strategic process research in the 1980’s. Summarising their impressions, Huff and Reger present six guidelines to those considering new projects in the area of strategy. The first is, "build on existing theory and research". This point is followed by several pieces of advice stressing the necessity to pay attention to the empirical context and content, the related theoretical literature, and methodological aspects. These five pieces of advice build trustworthiness. The last emphasises the element of surprise;

"Finally, a viable field, in our view, does not just codify current or ideal practice. It does not just seek to establish empirically the details of widely assumed relationships. The exciting field causes its members to sit up and take notice. The best articles surprise, they suggest new relationships that have not been on people’s minds, they upset conventional wisdom." (Huff and Reger, 1987:226)

Thus the criteria of trustworthiness (defined as relevant and convincing) and surprise (defined as the degree of "newness") are central in the evaluation of research. The importance placed on each one of these criteria, is however debatable. To some researchers or groups of researchers, trustworthiness, often measured by technical methodological criteria, is the most important. To others, the originality and thus the surprise criteria is by far the most important factor when evaluating research. Obviously, both aims can be fulfilled, but in most cases a choice is made. In this research, sympathies tend towards the latter opinion. Technical aspects of the method are viewed as the vital part in far too many articles, and the connection between the guiding values, the method and the conclusions are often overlooked.

"A preoccupation with methods on their own account obscures the

31 As I stated in the beginning the term "new" is not to be taken literally. New can be described as new arguments that confirm ideas or phenomena previously discussed. New can also be new ways of structuring findings known for many years. Hellgren and Löwstedt (1994) differentiate between two types of research, "to develop new knowledge within the field" or "challenging the frame". Subsequently is my view that surprises can develop within both these types.
link between the assumptions that the researcher holds and the overall research effort, giving the illusion that it is the methods themselves, rather than the orientations of the human researcher, that generate particular forms of knowledge." (Morgan and Smircich, 1980:499)

But is everything acceptable in methodological terms as long as it provides the reader with a surprise?\footnote{The point of view that Feyerabend maintains (Feyerabend, 1977).} Yes and no! There is, always the need to convince, and prove relevance in order to build trustworthiness. I feel that the most important factors in building trustworthiness is when the researcher tries to be as honest and explicit as possible about the method, the choices made and the assumptions underlying the research (Gergen, 1985). By doing this, the researcher then relies upon the confidence of the reader to evaluate the research and decide for himself if it is convincing or not\footnote{In the eyes of some readers this might classify me as "a relativist". However, following Berglund (1995) I argue that there exists a way beyond the dichotomy of objectivism and subjectivism (as represented by the relativists). Knowledge intersubjectively defined, is always able to communicate intercontextually. As Berglund states; cultures are not isolated islands; ferry services exist, and bridges are constructed (ibid:302). Thus, intersubjectively defined knowledge is at least to some degree judged and valued in time and space. Paradigms are not isolated entities. There is always a dialogue, even if there are differing rationalities at work in conflicting paradigms.}.

At this point the reasons as to why this chapter was entitled, "The aim of research and methodological considerations", becomes clear. By using this title, the two parts seen as crucial in describing and linking the concepts and criteria of trustworthiness are covered. The criteria of surprise is hopefully met in the following chapters.

\begin{figure}
\centering
\caption{The two interlinked parts of trustworthiness}
\end{figure}
3.1.1 The working paradigm

So far, the intention has been to give the reader an insight into the authors beliefs about research in general. Statements made above concerning surprise and trustworthiness, are an inherent part of my working paradigm. Before presenting the methodological considerations, I would like to elaborate on the construction of this working paradigm.34

The formulation of a working paradigm is always difficult, as there is often a discrepancy between the ideals described and actual behaviour (as described both in the methodological considerations and in the following chapters). In fact, it is possible to argue that ideals can be seen as utopian goals or visions, providing a sense of direction for daily tasks. Thus, any formulation of a working paradigm is to invite criticism. But that is, at the same time, a vital part of the research process, the giving and taking of criticism. Research that passes unnoticed, cannot result in any surprise.

The term paradigm is given many meanings. Originating from the Greek and popularised by Kuhn 1970, the term has been used in many different ways.35 Thörnebom (1975, 1976) applies the term to the

34 The term "working paradigm" is a direct translation from the Swedish term "arbetsparadigm". The term was coined by Melin (1977). Melin influenced by Thörnebom (1976), argues that the formulation of a working paradigm is a way to articulate the values held by the researcher. He adds that the articulation will never describe all values guiding the research process. This does not however, according to Melin, give any excuse for not trying. The following articulation of my working paradigm is therefore rather to be viewed as an attempt to follow the quest for self-reflection among scholars. (Argyris, 1985.)
35 There are a number of ways to define the term paradigm. Implicitly or explicitly
individual researcher, and views the paradigm as constructed by four control mechanisms; the role of the researcher; the conception of science; a research strategy; and a world view (Thörnebom 1976, 1977 and 1978).

My view of the researcher's role in social sciences is mentioned above. In my opinion, the researcher's role is to investigate and question that which is taken for granted. In today's world, the flow of information, stated opinions and perhaps doubtful conclusions is so overwhelming that we tend to drown in them. Often the flow of information, the overwhelming noise, forces us to oversimplify. Researchers should, in my view, assume the role of engaged critical evaluators of this information. The researchers role is to be suspicious of facile explanations and reveal inherent complexities.

As a result, my conception of science is governed by the criteria of trustworthy surprises. A trustworthy surprise is paradigmatically defined. That is, at any point in time, in one specific context, a scientific idea, argument or finding is regarded as scientific. In another context, this idea, argument or finding can be seen as irrelevant and perhaps even trivial (cf Brown, 1992). Following this view, I find research within the social sciences preoccupied with establishing "the eternal truth" (Mitroff, 1972) as somewhat overambitious.

most of them imply a framework of values shared by groups of individuals (as for instance Lindholm, 1979:56). Thomas Kuhn’s own definition of the term was initially vague. Masterman (1970:61ff) identifies 21 different ways in which Kuhn uses the term. In his later work, Kuhn narrows the use of the term to direct the attention to the constellation of group commitments and shared examples, together creating a framework of descriptive and normative values. A framework guiding the individual researcher’s attention and ways of conducting research (Kuhn, 1970).

36 This is a translation of my own. Thörnebom uses the Swedish terms; "Vetenskapssyn", "forskningsstrategi", "världsbild" samt "forskarernas roll".

37 Morgan (1983), stresses the need for engagement. Morgan argues that engagement is absolutely vital for research in social sciences as, “The view of research as engagement emphasizes that researcher and researched must be seen as part of the whole and, therefore, questions the idea that it is possible to stand outside the research process and evaluate it in any absolute way...we should be more concerned with exploring research diversity and its consequences through a model based on the idea of reflective discourse, or "conversation". (Morgan 1983:14)

38 Davies (1971), discusses the social sciences and expresses my standpoint in the following way "A theorist is considered great, not because his theories are true, but
opinion, truth and thus scientific conclusions are absolute only within a defined paradigm (see Gergen, 1992 for a further development of this argument).

An alternative to the search for the eternal truth is to focus on the importance of language. Norman (1970) argues that researchers in the social sciences are generally over concerned with casual relationships and forget the variables being studied, the nodes. He argues that the existence of a language and thus the variables being studied, are socially constructed (cf Berger and Luckman, 1966:35). Language is created by human beings, and legitimised intersubjectively. The legitimising of concepts is decided by their usefulness. Thus, language cannot be separated from values. It is not only a simple code between the observer and the observed, but directs our attention, as well as influences the results of our observations. Language is a means of understanding, at the same time as it is a filter, rejecting intrusions.

Is then the task of the researcher to describe and invent new words? No, according to Norman the researcher studies socially constructed 'mechanisms'. The task can therefore be seen as twofold, a) to describe these mechanisms with an appropriate language in order to develop a better understanding, and b) to analyse the relationships inherent in the mechanisms.

"A mechanism is simply a system which can, for some purpose, be bounded and studied as an entity. It consists of a description of the main elements and parts, their interrelationships and interaction processes, and the principal inputs and outputs of the system."
(Normann, 1970:22)

The focus of this study is the evolution of the paper and pulp industry during several decades. Evolution in general, and that of the paper and pulp industry specifically can be, (and often is) analysed by measuring relationships between structural proprieties. The ambition of this study is to describe and understand this evolution by focusing on the beliefs expressed by the language, i.e. the belief structure. Hopefully, this will increase the understanding of evolution and offer some new insights into the relationship between strategic change and industrial wisdom

because they are interesting".
and which will fulfil the criteria of surprise stated above.

The research strategy is based on beliefs of those issues that are seen as important and those methods that are viewed as suitable to use. An in-depth discussion regarding suitable methods is included in the next section of the chapter, the "methodological considerations". At this point, I will however take the opportunity of discussing the assumptions behind the project and thereby the choice of design. In chapter one the importance of a longitudinal perspective was discussed in a general sense. Regarding the pulp and paper industry, the importance of a longitudinal perspective became even more important. As the industry is characterised by investments in, for instance, forest replanting made within a 70-120 year time perspective, an understanding of the present situation is difficult to appreciate if the history of the industry is not considered - a conclusion often stressed by industry experts.39

"What is past is prologue" - This sentence is inscribed outside the entrance to the Congressional Library (Riksarkivet) in Washington. It is also extremely applicable to the Swedish forest industry. We can never forecast without an awareness and understanding of the past."(Browaldh, 1958) 40

"The key to the future is to be found in the past." (Carlgren, 1985)41

The historical perspective is not only motivated by the characteristics of the case. The social constructionist perspective argues that history is important as the historical perspective enables us to better understand present processes.

"Reciprocal typifications of actions are built up in the course of a

39 Further on in this chapter the concept of "industry expert" will be further discussed.
40 Tore Browaldh was chairman of the Board in SCA, the largest Swedish pulp producer in 1965-1988. His father, Ernfrid Browaldd was one of the founders of the company in 1929 and chairman of the Board in 1955-1960.
shared history. They cannot be created instantaneously. Institutions (i.e. social structures) always have a history, of which they are products. It is impossible to understand an institution adequately without an understanding of the historical process in which it was produced.” (Berger and Luckmann 1966:50, addition by author)

Gergen (1973) illustrates this point in an good way. He argues that in contemporary social psychology, the values held by researchers and society as a whole influence the research conducted and the results communicated. This is, according to Gergen, an inevitable fact. Excluding values when analysing and communicating research would make it pointless. However, Gergen maintains that in order to gain an understanding of the processes in which contemporary ideas in social psychology evolve, there is a need for historical studies.

"Most social psychological research focuses on the minute segments of ongoing processes. We have concentrated very little on the function of these segments within their historical context.” (Gergen 1973:319)

Gergen refers to the situation in social psychology in 1973. Requests for longitudinal studies are however widely acknowledged in the social sciences. Pettigrew (1992b:5) reports, for instance that "Much of Strategic Management writing, like a good deal of social sciences, is an exercise in comparative statistics" Also Kieser (1994:609) reports that in the sociology of organisations, the interest in historical analysis vanished a few generations after the influential works by Max Weber.

In the above, Gergen's argument maintains that historical analyses would help contemporary researchers to reflect on the values and assumptions expressed in contemporary research. Kieser supports this view but also adds four reasons for conducting historical analyses in organisation sociology. (1) Structures of, and behaviour in, present organisations reflect culture-specific historical developments - the research of differences in country specific historical patterns will enhance the understanding of today's differences. (2) The identification of actual organisational problems is often infused by ideological values - a historical analysis reveal the logic behind ideologies. (3) Organisational structures are all too often seen as being determined by some external driving force (natural law) - historical analyses gives us perspectives on choice opportunities. (4) Theories of
strategic change are often contextually bounded - the confrontation with historical developments will help us to develop more appropriate theories of change. This last point is stressed by Pettigrew (1987) when he notes that, "There are remarkably few studies of change that actually allow the change process to reveal itself in any kind of substantially temporal or contextual manner." (1987:655).

Several of these arguments reflect both the importance of a historical perspective and the need to focus on belief structures. The need to focus on belief structures was more explicitly formulated after reading Englund (1989). In this book, the belief structures of the Swedish nobility are studied to ascertain if, and if so, how, these shared beliefs changed during the course of the seventeenth century. His argument for conducting the study is that historical studies often increase our knowledge about the actions taken, but little is known about the thoughts and beliefs guiding these actions. Englund refers to Georges Duby, a representative for the Annales’ tradition in history. Duby (1974) as does the entire Annale tradition, focuses on the slowly changing structures of society. He argues that the only way to understand the constructional patterns of societies, and the conditions causing change, is to focus on the conceptions held by the citizens of the society.

"The formulation of social interactions and relations, and underlying forces which can bring about change, take place within the context of a system of values. A system which is generally regarded as determinative in the development of social history. In reality, individual actions, behaviour and interaction with other members of the group are guided and influenced by this." (Duby, 1974:87)

The strong emphasis given to the ideological dimension as a constraint in the quotation, is not in line with the wider spectrum given for individual choices in the present theoretical framework. However, the idea that company seated beliefs are related to wider social value systems, which can be called ideology, paradigm, culture or a shared belief system, is attractive. A wider shared belief system must be studied, if the relation between belief structures and actions taken both in historic and contemporary times is to be understood.

Finally, the most important part of the working paradigm is the world view. This is a difficult part. Not because I hesitate to declare
my view of the world. The reason has more to do with the complexity of the task. What am I to include in a brief statement like this? Following the outline of the chapter, I choose to focus on a few terms I regard as essential in order to understand my position; i.e. meaning, power, trust and frankness.

The first two are of a more general character. I see the world as a place in which human beings strive for meaning. As humans we attempt to make sense of the situations we find ourselves in and we strive for meaning in the tasks we have to perform. The creation of this meaning is not however an individual project (cf Ericson, 1998). On the contrary, the world could roughly be divided into the roles of "meaning-creators" and those "buying in" on explanations provided.

The role of meaning-creators is contextual. A meaning-creator in the office, dominating this sensemaking process might be buying in on the meaning offered by someone else when he reaches his home (the meaning created by his child for instance). Thus, the role of meaning maker or meaning creator is thereby not restricted to a few. However, the concept of power must be included to understand why the meaning provided by one individual is viewed as more relevant than competing meanings offered by other individuals. According to my view, "truth" becomes dependent on context. Language is, in this process, a tool used by powerful meaning creators to influence other organisational members (cf O’Reilly and Chatman, 1996). Accordingly, language is a reflection of the distribution of power. That is why we as researchers must focus our attention on language, just as our results must be elaborations of language, in order to cover aspects neglected or forgotten in meaning creation processes.

---

42 Compare the reasoning in Gioia (1986). Further more I agree with Gioia when he states that "this search for meaning is not be interpreted that people are rational, active, or even conscious processors of information, but it does mean that they engage in a process of ascribing meaning to, or imposing meaning upon, experience (including their own actions), and use the imposed meaning as a basis for subsequent understanding and action." (ibid 1986:50)

43 Compare the terms sensegiving and sensemaking (Gioia and Chittipeddi, 1991). Berger and Luckman (1966:137ff) introduce the terms significant other and less significant other in a similar way. See also Smircich and Morgan (1982) and Sztopka (1991:126).

44 This part is inspired by Goffman (1959).
"Language and communication are used in organisations to serve two primary functions: first to understand what people are thinking and feeling; and second, to create or influence these cognitions and emotions." (Donellon 1986:152)

In the political environment outlined above, I would not function if I did not believe in frankness and trust. I see frankness and truth as vital ingredients in both research and my social life. I am good at trusting! I tend to trust people all the time. Sometimes I make a mistake, and have to pay for this. But I still believe it is better to pay this price because trust will eventually pay off. If you trust people, they tend to trust you, which is a good basis to a working relationship. Frankness is more difficult for me. I see frankness as a vital ability. If we are frank and speak up in a constructive way we help the people we criticise to improve their thoughts. The time to worry is when the dialogue in a research institution becomes too polite. Politeness, is here, the same as a lack of creativity and thus newness.\(^45\) Finally, I believe that it is the combination of trust and frankness in relations that makes real friends! This was an attempt to declare my position, and the values I see as important when conducting research. I hope the reader will have gained some understanding of me and the values that I hold, when reading these few pages. The problem is, however, as several readers have pointed out, not to formulate the ideals, but rather to translate the "nice" words into action. In the next section, I will describe the methodological considerations made in the study. It will be up to the reader to judge if this part and the rest of the study meet the criteria set up in the above!

3.2 Methodological considerations

I will now, following the ideal stated above, describe and discuss as thoroughly as possible the methodological choices made during the study of the Swedish pulp and paper industry. The procedure described in the following can give the impression that the

\(^{45}\) Be aware that I included "constructive" before critique. I am not suggesting bluntness when I am arguing for frankness.
methodological strategy was planned in a very rational way when the empirical journey started. This is, however, not the case. The empirical part of the research process can best be described as a frustrating process, in which my rather impulsive nature, more than once, fostered actions without considering the consequences. Summarising the process in this study it is somewhat surprising, that even taking into account the frustration experienced because of all the dead ends in the process, so many things have been learnt. 46

As argued in chapter one, longitudinal methods are of interest. Kimberly (1976) defines longitudinal organisational research as,

"those techniques, methodologies and activities which permit the observation, description and/or classification of organisational phenomena in such a way that processes can be identified and empirically documented.” (Kimberly, 1976:329).

The techniques, methodologies and activities offered are, however, disparate. In a special issue of Organisation Science (1990, vol 1, nr 3) longitudinal research in organisational change followed ethnographic methods, comparative case studies, event history analysis and real-time tracking of events. Miller and Friesen (1982) as well as Kimberly (1976) are just two more authors adding methodological suggestions of how to study longitudinal change processes. Pettigrew (1992b), writing about the field of strategy process research, concludes that we need more explicit thinking about the analytical and conceptual processes upon which processual research is built. He continues,

"This is not an appeal for doctrinal orthodoxy, but a request for a language to guide discussions about strategy process and indeed, at the most practical level, for more knowledge about the process of

46 More than once I have felt somewhat foolish when, in retrospect, mistakes made in the project were identified. Some of those mistakes will be discussed in the following, as the broad research questions and the search for the systemiser. However the reading of Carr (1961), Miles R. H. (1982), Blomberg (1995) and Meyer et al (1995) made me more comfortable. To apply an incremental or empirically based methodology for research seems to be a reflection of openness and respect for the research object to these researchers. This follows my belief in trustworthiness, discussed in the above.
Some advice towards a more structured understanding of longitudinal field research has been developed at the research centre led by Andrew Pettigrew. According to Pettigrew the single most important factor is to be clear about the research objective (Pettigrew, 1990). In this case, the entire process takes the shape of "a journey". A broad defined research objective and some basic ideas initially drove this project which subsequently led to an incremental design of methodology. These initial ideas are briefly introduced here and thereafter elaborated in the following.

The first and most important idea was the aim of the project, i.e. to describe and understand the interaction between industrial wisdom and strategic change. From this overall aim and the theoretical elaborations in chapter two, the study of industry wide issues followed as a vital step in the research methodology.

The second idea was that the empirical focus was to be on industry experts. This was partly due to earlier experience when studying the pulp and paper industry, studies in which the focus was placed on top-management and strategic change (Hellgren and Melin, 1992). In order to continue this dialogue with research focusing strategic issues and change in industrial wisdoms, a focus on industry experts was also seen as the most appropriate (cf Spender, 1989, Porac et al, 1989). Moreover the sensemaking processes among top executives is highly relevant as they can be assumed to be important "meaning creators" in both organisations and industries (cf Hambrick and Mason, 1984; Priem, 1994; Peteraf and Shanley, 1997). As described in the theoretical framework top executives can be seen as a group of experts in areas such as strategic development (cf section 2.1.1). Therefore the label "industry experts" mostly comprises top executives in the industry. However following Lord and Maher (1990), consultants having worked in the industry during a long period of time were also included in the group. All of these can thus be seen as individuals holding a contextualised expertise (Hosking and Morely, 1991).

The third idea was to study the industry during a long period of time. Because one basic hypothesis is that beliefs are structural qualities, a study focusing on changes in those structures must encompass a long time period (Björkegren, 1989; Hellgren and Melin,
1993). In the pilot study (Hellgren et al, 1993) the time span used was ten years. This study revealed some changes but was considered too short to be useful. Following the idea proposed by Pettigrew (1990:272), a "major social drama or breakpoint" was used as the starting point for the study. In this case it was the end of the Second World War. As reported in Melander (1997), the choice of 1945 as the starting point was not entirely satisfactory, as many of the processes could be traced back to early phases of the industry’s evolution. Stinchcombe (1965) for instance, argues that the structure of today’s organisations and industries are directly related to the time when they were founded, - an argument worth taking into consideration. As a result, a historical review of the industry’s history was undertaken. A brief summary is presented in chapter 4. The full version is available in Melander (1997). As described in the first point the decision was to use the issue perspective in order to gain an understanding of the processual character of change.

The fourth was the idea, which was strong at the start of the project, to design the study in such a way that made it possible to conduct comparative studies in other cultural settings. This ambition still stands, even if the comparison between cultural settings is not part of today’s agenda. This idea directed attention to sources which could provide systematic information during a longer period of time.

The fifth idea that guided the study, was data reduction. It became evident that studying the evolution of an industry was an effective way to drown in data. The reduction of this data to a manageable level without leaving out essential parts is a major problem (cf Huberman and Miles, 1994). Eventually the search for the effective data reduction tool was given the name, "The search for the systemiser".

The five ideas presented in the above permeate the process and the decisions made during the research process. The process itself will now be described in more detail. To help the reader follow the stages, the following sketch summarising the process is presented.

Figure 3.2. The empirically based methodology
The most used way of studying norms, values, beliefs and ideas is to combine studies of artefacts with observations, interviews and/or participation in organisational daily routines (cf. van Maanen, 1988). This is a design that aims to encompass individuals' thoughts and behaviour. The ambition to reveal changes in beliefs among top executives in an industry over a long period of time made this research design difficult. One of the obvious problems was that many of the interesting interviewees were just not around any more. Moreover, with the ambition of revealing changes in shared belief systems, interviews are a difficult research design as the interviewees forget minutiae and/or unconsciously adjust their statements so that they will fit the official view of historical development, the "industry saga", to paraphrase Clark (1972).

Following the emerging ideas about categorisation (see section 2.1-2.3), the decision was to search for industry-wide issues. That is, problems or possibilities that were seen as of importance to the experts within the industry. By reviewing these issues it would be possible to identify the shared belief system within the industry.

In this case the choice was made to focus on written documents. Documents such as annual reports, investigations, commission reports speeches, minutes, articles and so on written in a specific context at a specific point of time were of interest. Moreover, if they were written aiming to describe an issue and/or argue for a standpoint, they were

---

47 Miles R. H. (1982) develops a similar argument when choosing to initially rely on archival data. This study follows Miles design to use interview data in a latter stage in the research process.
even more illuminative. The search for as much authenticated information as possible was deliberate, as time specific documents were seen as a way of better understanding time specific conditions (Thurén, 1976).

As the initial idea was to design a longitudinal and comparative study, there was a need for a consistent and systematic source of data during the long period to be covered. Reviewing the literature, two possibilities were identified. The first was to focus on annual reports.48

One way to systemise the issues dealt with was to use the CEO's letters to the shareholders included in Annual Reports. After reviewing a number of Annual Reports they were found to be of limited use.49 A simple reason for this was that the majority of reports did not include a letter to the shareholders. The CEO letters were, in most cases, not introduced until the beginning of the 1970’s. The second attempt failed because of the same problem. Reviewing the trade associations official magazine during the period 1945-1990 (Svensk Papperstidning) searching for speeches, debate articles and reviews written by industry experts, a huge selection of articles for the period 1960 and onwards was collected. During the period 1945-1960, debate articles were few, and the articles discussing industry wide issues were almost non-existent. Data from Svensk Papperstidning was also combined with a complementary source, the magazine Skogen. This, however, did not constitute any substantial change (At this time I created a computerised database to be able to sort out all the information collected).

The third approach was to visit archives. Visits to seven company’s archives, provided the research project with large volumes of data, once again with the focus on speeches and articles produced by top executives. The company archives covered in the visits were;

MoDo
STORA
SCA
Holmen

48 Bowman (1978) argues that Annual Reports are useful data to understand strategic change. This issue will be further discussed in section 3.3.2.
49 The collection adds up to 359 Annual Reports today.
The archives chosen represent several of the largest companies in the industry. Conscious of the fact that the archives were merged with the archives of acquired companies, the initial thought was that information pertaining to a substantial number of presently non-existent companies could be uncovered. However, this idea was only partly confirmed. Furthermore, the access problem was also an obstacle. Most of the information found in the archives covered the period 1950-1980. After this period, the type of written material being sought was either no longer of interest to save, or no longer produced. In total more than 200 speeches were identified. At this time, it was realised that in the search for a systematic source of data, a very large data-base had been constructed. Perhaps I was close to what Pettigrew (1990) named "Death by data asphyxiation".

**Figure 3.3. An overview of data sources used in the project**

---

50 Access was forbidden to a number of archives as they were seen as a part of family history. Other archives were in such disarray that the limited time available for field research made me withdraw from deeper studies. The visits to the seven archives took from 2 up to 5 days. The visit to the trade associations archives discussed in the following lasted each a month.

51 The simple reason could also be that those speeches and articles were not yet available in the archives.

52 In "speech" are included articles based on speeches and published in trade magazines as well as articles written by industry experts. All speeches are not included as references in this text.
The problem of locating a reliable source of data made the problem of data-reduction apparent. This problem is by no means unique for this study. Van den Ven and Huber report that;

"Whatever sampling strategies and data collection methods used to observe change processes in the field, all the authors report that over time data mount astronomically and are beyond the information processing capacity of even a trained human mind." (1990:217)

They however also continue by stating that most research reports "violate a basic canon of scientific reporting" by not including an explanation of how the data-reduction process had been performed. The conclusion of a review of literature discussing the problem of data-reduction in longitudinal studies is that there are two broad alternatives. The first is to formulate a narrow research question. If the question is narrowly defined, the relevant data the researcher will have to collect will be reduced. Silverman stresses this when he discusses how to specify the research problem. *If anything, however, the narrower the question you ask, the more likely you will produce a satisfactory answer.*" (1985:12).

Implicit in this statement is the idea that a narrow question will be easier to operationalise when searching for data.53 The second possibility is to, by means of a distinct methodology, narrow the data collection. The choice of a distinct methodology could also be a way of meeting the accusations of "anecdotal qualities" in field studies focusing on subtleties (cf Mehan, 1979; Porac et al, 1992). The core of this criticism considers the problem of how to follow the analytical process carried out by the researcher. A criticism that is parallel to the

53 Silverman, however added a warning: If nothing is asked, no problem will be provided, consequently no data at all will be needed!
request for openness mentioned earlier. The combination of a narrow research question and a distinct methodology is obviously an attractive way to achieve efficient research (measured in hours spent in the field)!

After implementing an empirically grounded methodology when collecting data in 1993-1994, a solution of how to handle the systemising problem was reached in the autumn of 1994. At that time the archive was discovered in which the trade associations board meeting minutes were kept. From previous knowledge it was soon concluded that these minutes represented a systematic source that reflected several important issues in the industry during different periods of time. The minutes not only reported the decisions made in these issues but also included reports about the actual discussions held concerning the issues. I decided to devote a great deal of time to this archive in order to systematically review the minutes. The Swedish pulp and paper industry had been organised in three trade associations until 1968. The two dominating ones were the Swedish Cellulose Association (SCF) and the Swedish Paper Mills’ Association (SPF). It was decided to search for all the minutes from board meetings held in the two associations (1945-1967) and add those held by the Swedish Pulp and Paper Association (SCPF) 1968-1985. Using a flexible layout in a computer based database programme (FileMaker Pro), the paragraphs in the minutes were categorised.

From the categorisations a pattern emerged. To do this three phases were used. In the first phase the decision was taken either to classify the paragraph or not. As seen in the table below, more than fifty per cent of the paragraphs were classified as of no interest to the study. These paragraphs were of three types; strict formalities such as election of chairman; election of members to check the minutes; decisions regarding adjournments and decisions concerning subscription rights. Secondly, traditional paragraphs passed without debate such as decisions concerning annual reports, election of representatives from other organisations, formal budget decisions and decisions pertaining to grants for research. And finally a number of paragraphs that included decisions regarding issues beyond the overall interest of the research, such as portraits of resigning presidents of trade associations, retirement allowances, decisions about wages for

54 I was unable to acquire access to the minutes of the meetings later than 1985.
employees in the trade associations, questions connected to the geographic location of the trade association,\textsuperscript{55} anniversaries and so on.

<table>
<thead>
<tr>
<th>Period covered</th>
<th>Number of meetings</th>
<th>Paragraphs</th>
<th>Classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945-1985</td>
<td>514</td>
<td>5,496</td>
<td>2,447</td>
</tr>
</tbody>
</table>

After that, the remaining 2,447 paragraphs were classified and sentences, including some key words that described the content of the paragraph were included in the database. In paragraphs that included long statements or complicated discussions, the text was photo-copied for further use in the analysis. As the knowledge about the content was vague when the study started, the open layout in the computer programme allowed me to use a broad categorisation, for later analysis. The categories used were, issues related to international relations, issues related to Swedish conditions, issues regarding internal negotiations (among the members), and issues concerning the role of the trade association.

In the second phase, the frequency with which the content in the classified paragraphs appeared was measured in two combined ways. First the content appearing with a high frequency was regarded as interesting, and second, the time used to discuss the content was measured. The latter was done by reviewing the amount of space taken by the paragraphs in the minutes. Paragraphs given a substantial amount of space and in which lengthy discussions were reproduced, were seen as more important than those given a brief amount of space in the minutes (cf Krets de Vries and Miller, 1987).

3.2.1 The sensemaking phase

At this stage, a pattern of issues could be identified in the paragraphs classified. However, the emerging patterns were still partially unclear to me and the number of issues made it difficult to overview the entire period. Furthermore, I suspected that some vital issues in understanding the development of the industry were not covered in the trade associations' archives. To reach clarification of this point, two

\textsuperscript{55} The trade associations headquarters was moved within Stockholm during the period covered.
more steps in a triangulation procedure were conducted (Jick, 1979: Huberman and Miles, 1994). At the time, this was not a planned triangulation procedure. Instead, the aim was to understand and make sense of the complex information. As the process developed the two next steps emerged.

The second step in this procedure was to compare the emerging patterns with the data bank of complementary data (speeches, articles, Annual Reports and public investigations). This was probably the most important phase in the process, as the time spent thoroughly reading the information from complementary sources made it possible to develop and clarify the evolving patterns of issues. Furthermore, the review of the complementary information conducted at this stage made it possible to identify several issues that were not dealt with in detail at the trade associations' board meetings. Either the board did not deal with these issues, or they were dealt with by other parts of the co-operative arrangements within the industry. It must also be noted that the minutes for the period 1985-1990 were not available which implies that the issues detected in this period, mainly derive from the complementary data and the interviews. After going through the second step of the triangulation procedure, 'Annual Reports' for the entire period were constructed. Each report was two-three pages long and consisted of information about the vital issues during that particular year (A total of 110 pages of reports altogether). In the reports, short summaries of speeches held during that year were also included. However, at this time, a new problem arose. The total number of issues detected was still very large. Moreover, some of the issues only appeared during rather short periods of time and other issues seemed to have been present during the entire period studied. Thus, a major problem in the process was to choose an adequate level of issue abstraction. This period of empirical studies ended in the beginning of the summer of 1995. At the end of the period, a search

56 Janesick (1994) identifies five different meanings of triangulation. Here, the concept is used to indicate the use of a variety of data sources in the study.
57 Thomas et al (1994) illustrate the different levels of issue abstraction that are possible. Studying issue through a survey instrument they detect 26 issues in the focused industry. Obviously extending this finding to a period of 45 years, the number of issues would be overwhelming. Thus the need for "issue abstraction" is evident.
continued for more general issues (representing a higher level of abstraction) in the data. To gain further insights, 14 additional interviews were conducted with industry experts to detect these broader and general issues. This was the third step in the triangulation process. The interviews were unstructured in nature but the “hidden agenda” contained a list of issues that were tested on the interviewee. If the suggested issue was of interest and regarded as vital for the industry development by the interviewee, this was noted and compared with the rest of the interviews. Gradually, a pattern of what were regarded as the most important issues emerged. The summer of 1995 was also used to write preliminary parts of the case - a further means of making sense of the material.

An example of a general and important issue to be further discussed is "the trend towards trade liberalisation". This issue entailed a large number of issues appearing in the debate, for instance the foundation of EEC (or the six) in 1956 and the following discussion about the foundation of EFTA, the applications from England, Denmark and Norway to join the EEC some years later, the GATT negotiations appearing on a number of occasions and so on. Obviously the issue analysis would have gained trustworthiness if a broader set of issues had been included in the analysis. The choice was made, however, to pursue a more focused discussion of the issues in the case. A discussion that was to be used as a basis for the issue analysis. In this way, the complexity inherent in the issues, at least to some extent could be described in the empirical part of the thesis.

As discussed in the theoretical framework, issues are interrelated with the shared belief system within the industry. The issues dealt with are thus not to be seen as stimuli, but rather an outcome of an active sensemaking process by the experts in the industry. Thus, the emerging set of issues is, in itself, a vital part of the industrial wisdom in the industry.

Analysing the issues, did, however, clarify their relationship to industrial wisdom. This analysis was conducted with the help of an analytical idea proposed by Dutton and Jackson (1987), Jackson and Dutton (1988). After studying the strategic management literature, they suggested that "threat" and "opportunity" are two "salient

58 This was the final round of interviews. In the beginning of the project (1990-1992) an additional 16 interviews were conducted.
strategic issue categories” (ibid:80). That is, categories repeatedly used by managers in everyday language as well as used as the basis for more formal planning programmes (cf Porter, 1980; Johnson and Scholes, 1993).59

"The idea of SWOT (strengths, weaknesses, opportunities and threats) as a commonsense checklist has been used for many years. See for example S. Tilles, "making strategy explicit” in I. Ansoff (ed.), Business Strategy. Penguin, 1968” (Johnson and Scholes, 1993:154, reference 19)

Opportunities, according to Dutton and Jackson imply a positive situation in which gains are likely to follow. Threats, on the contrary, refer to a negative situation in which losses are likely to follow. Moreover the threat category often refers to a lack of control, as this is a factor of increased uncertainty. Dutton and Jackson (1987), following the categorisation theorists, propose that the initial labelling of issues as either threats or opportunities remain rather stable in the long term.

Reviewing the material used in the project, issues are often seen to be related to particular solutions. These solutions tend to live a life of their own as they are related to many issues which appear in the debate. Following the ideas of the garbage can theory (cf March and Olsen, 1976) and other lines of institutional theory (cf Czarniawska-Joerges, 1988; Brunsson and Hägg, 1992) solutions travel through time and between organisations, and even if an editing process (Sahlin-Andersson, 1996) takes place, similar solutions are applied within industries. Solutions are thus also related to the shared belief systems in industries.60

59 Gioia and Thomas (1991) and Thomas et al (1994) suggest ways to develop and include further aspects in issue categorisation. These aspects are however mainly developed to match the specific characteristics of one "industry” (Academia).
60 The garbage can model (March and Olsen, 1976) and similar ideas, often exclude the role of institutional factors in decision processes. I.e. the model is depicted as a system existing beyond the control of humans and institutional structures constructed by humans. This line of reasoning is not followed in this study. Recently the garbage can model has been extended and attempts are made to take
"Decision-makers also possess a cultural repertoire of answers or action alternatives that can deal with a wide variety of issues, problems or opportunities in the firm" (Ocasio, 1997:194)

By now an analytical model in three steps could be constructed. In the first step, issues are detected. In the second step, issues are labelled as threats or opportunities, and in the third step issues are related to suggested solutions. Extracts from a speech made by Lars Sjunnesson, CEO of SCPF\textsuperscript{61} in 1975, can be used to illustrate the interpretation process. The speech, entitled "The Swedish development in the pulp and paper area in an international perspective\textsuperscript{62}", is of interest in this study, as it covers the broad development of the industry and focuses on problems and opportunities. Following a general description of the historic evolution, Sjunnesson discusses the present problems. One of the issues was the supply of wood.

"The present situation of the industry regarding its supply of wood can only be seen as enforcing restrictions on the manufacturing of our basic product - pulp." (1975:236)

In this quotation Sjunnesson expresses concern about the future supply of wood. I interpret this as a possible issue. As this concern is voiced in other speeches, articles, reports and annual reports, it qualifies as an industry-wide issue. Sjunnesson continues to discuss the implications of the shortage in his speech. The issue is labelled as a threat, as the shortage of wood will limit the future quantitative development of the industry. For Sjunnesson the solution to the issue for the industry is obvious - a qualitative development through increased integration between paper and pulp production.

"It is obvious that, because of this new situation, trends towards increased integration seen during the past 15 years will accelerate."

\textsuperscript{61} The Swedish Pulp and Paper Association.

\textsuperscript{62} This is one of the few speeches that were held in English. The speeches in Swedish have been translated by a language expert and double checked by two independent readers.
There is total agreement in the country regarding the desirability of increasing the value added as much, and as soon as possible." (1975:236)

Following the theoretical framework, the interpretation of issues had to be complemented by an analysis of the institutional beliefs in industrial wisdom in the pulp and paper industry. The process in which these institutional beliefs emerged are more difficult to describe than the issue process above. During the first analysis, reflections concerning the connections between issues were made. The starting point for the identification of institutional beliefs was the observation that new issues entering the debate were often likely to be labelled in similar ways as the existing ones. And perhaps, which is even more interesting, new issues were linked with solutions also proposed to earlier issues.

The next step was to review the interviews in more detail and to examine opinions about the issues in the debate. A pattern soon emerged in which beliefs, such as "the need for a long term perspective", "co-operation as a favoured solution", "the North American pulp and paper industry: a point of reference", "bulk products for a competitive advantage" and "the role of the pulp and paper industry in Sweden", could be seen as vital when trying to understand the relationship between issues, labels and solutions. Therefore as shown above, a pattern finding method was used to identify both situational and institutional beliefs. This focus on patterns can be criticised as surpressing the contextual dependence of language. As Hodder (1994) points out texts are always possible to interpret in different ways. The only way to overcome this problem, is according to Hodder, to put the text in context. Alvesson and Köping (1993) argue that the researcher has to take a questioning and reflective attitude towards statements made in documents and interviews in order to extend the analysis beyond the immediate context. In this case, the construction of the case is a way of showing that the analysis relies on a variety of sources and these sources are systematically, with the help of the triangulation process, used to build a contextual framework from which the analysis of particular statements made in any individual speech, interview or article is made trustworthy.

So far, the analysis has been focused on the concept of industrial
wisdom. The issue analysis and the identification of institutional beliefs proposed to represent the shared belief system within the industry provide an operationalisation of the concept. However, the purpose of this study was, both to describe industrial wisdom longitudinally and to relate it to strategic formation processes taking place in individual companies. Obviously it was necessary to choose a few examples for closer study.

The strategy processes chosen for study were those perceived by industry experts as important, i.e. experts had, in interviews, mentioned these actions as strategic and vital for industry's development. However, to focus only on these strategic changes would be to ignore other actions that were of vital importance for the company in question, but, seen in retrospect, of minor importance to overall industry development. Therefore in order to qualify for further study examples should also be justified by the theoretical contribution they could offer to the development of knowledge concerning the interaction between industrial wisdom and strategy formation.

Studying strategy formation on the organisational level, it became obvious that new questions would have to be added and formulated to the data already compiled. Interviews, in combination with historical surveys of companies, were added to the existing data bank. Concentration on industry perceptions, however, obviously made it difficult to attain the depth necessary to acquire a full understanding of all the aspects of the strategy formation processes examined. Therefore, I chose not to use the term "cases". Instead, the term "vignette" is used when describing the six strategy formation processes.

3.2.2 The data used and the implications of the emerging industrial wisdom

Before leaving this chapter I would like to note a few points regarding the relationship between the data sources used in the research, and the emerging results. The first point concerns the relevance of the data used in the study. Obviously the choice of data affects the results in

63 Following the discussion in chapter one and two, a strategy formation includes action outcomes and a dimension of argumentation and justification.
general terms. Perusal of the minutes of the trade associations' board meetings made me focus on a certain set of issues. The triangulation process allowed me to expand on some of the issues only briefly discussed at the board meetings. However, the triangulation process also introduced issues not discussed at board meetings. Nevertheless, the choice of archives searched, the availability of speeches, annual reports and the choice of business magazines obviously had an influence on the end result. It could, for instance, be argued that I am only relating the view of the "survivors" (represented by companies still in business in 1990). However, the inclusion of data from Iggesund, Holmen, Billerud and Uddeholm does not support this possible accusation.

The second point focuses on the true meaning of the texts studied. Do the speeches reveal the real opinions and ideas held by the experts, or are they only constructed justifications? For instance Staw et al (1983) argues that annual reports are used as a means for "impression management". This problem has been discussed extensively by researchers in the field of management (cf Bowman, 1978; Staw et al, 1983; Salancik and Meindl, 1984; Huff and Schwenk, 1990; Barr et al, 1992; Söderlund and Vilgon, 1993; Laukkanen, 1996). The conclusion these researchers reach is that the use of annual reports as the only database is not to be recommended.64 However, by combining speeches, annual reports, articles and investigations, it is unlikely that individuals are able to deliberately separate the versions presented and to "keep two sets of books", i.e. to present different versions to different audiences (Söderlund and Vilgon, 1993). Going through the material collected a number of times, and studying both speeches made by one individual longitudinally and comparing several of the speeches cross-sectionally at one specific point in time, gave me further confidence and reliance in the argument presented by Vilgot and Söderlund.

This is, however not exactly the same as arguing that all speeches dealing with the same issues, labels and solutions are connected in the same way. The presentation given in the following can be described as "the majority" view at any one time. In some cases, when two or more obvious standpoints emerge from the data, this is seen as representing an internal issue within the industry. If the debate is intense it

64 If not, obviously, the aim of the study in question is to focus on such reports.
sometimes qualifies as an industry wide issue and is thus presented as such in the analysis. In this way, the continuous internal political lobbying and debates can be seen and expressed as an important part of the sensemaking process. Due to the extensive time period covered and the information used in the study, the more subtle aspects of this process are unfortunately not covered in the analysis. However, in chapter five, an expansion of the discussion concerning the sensemaking process is related to some of the identified issues.

**The structure of the data**

The material chosen for analysis and issue identification as a method of structuring the data collected is discussed at length. The actual description of the case is also a somewhat difficult problem. As the reader will observe, the historical development is divided into four time periods. This division has been enforced by the author's cognitive limitations. The intervals are deliberate in the sense that they do not represent any major change in the industry. The aim is to be as processual as possible in the descriptions. The separation into four time periods was an exception from that ambition. Within these periods, the structure of the issues mainly correspond to the triangulation process. Initially, the issues surfacing and identified while studying the board meeting minutes are described. Thereafter issues relating to other information provided by speeches, annual reports and trade magazines are covered, and finally, issues emerging during interviews are reported.

**The view taken**

As noted above, there are always different opinions regarding historical development. The aim here is to examine the opinions of the experts within the Swedish pulp and paper industry, i.e., their view of issues, their labelling of these and their solutions, i.e. the perspective is that of the industrial establishment. The definition of industry expert was discussed in sections 3.2 and 2.1.2.

**The industry**

Finally a word about the empirical subject of the study - i.e. the
Swedish pulp and paper industry as represented by industry experts. Does the Swedish pulp and paper industry represent a distinct context of importance in relation to companies strategic actions? Reviewing the "European pulp and paper industry in 1993", Roberto Zavatta states that,

"Speaking of the pulp and paper industry, Europe must be regarded as consisting of two quite diverse entities, the EC area and the Scandinavian countries (Sweden, Norway and Finland).” (Zavatta, 1993:91)

Zavatta focuses on the infrastructural dimension in his study of the pulp and paper industry. Extending this perspective and also including the relational and shared belief structures, Petersson (1996) finds distinct differences between the Finnish and Swedish industries. Differences that are further illustrated by Lilja et al (1992) and Hellgren and Melin (1992). Comparing the Finnish and Canadian pulp and paper industries, Jörgensen and Lilja (1994) also identify important differences between these. Together, these studies indicate that the Swedish pulp and paper industry is geographically defined to the nation of Sweden. However, even within the geographic boundaries of the nation state, the industry must be further defined. Lilja et al (1992) argues that the Finnish pulp and paper industry is of such importance that the entire industrial subculture (Turner, 1971) is permeated by this industry's specific belief structures. In Sweden, Sölvell et al (1991), focusing on infrastructures, identify six important industrial clusters of which "forest products” is one. This cluster consists of "a number of interlinked smaller clusters” (Sölvell et al, 1991:76). Of these, pulp and paper production can be defined. Studying this cluster in depth, Sölvell et al identify a limited number of companies that are specialists in pulp and paper production.

Turning towards the relational dimension, companies producing pulp and paper are members of the Swedish trade association - "Skogsindustrierna”. The name of the association was in the period 1968-1989 SCPF - in translation "The Swedish Pulp and Paper

---

65 Zavatta obviously means "The Nordic countries" as Finland is included.
66 In chapter two the meaning of these three structural dimensions will be further discussed.
Association”. With a few exceptions the companies mentioned in Sölvell’s study had been members for several decades. It is thereby no overstatement to assume that relational ties between these member companies identified in the infrastructural dimension exist - an assumption confirmed by the historical surveys examined in the initial phase of the project.

The shared belief structures is the main focus of the present project. However, together with knowledge accumulated in earlier projects (cf Hellgren and Melin, 1992; Hellgren et al, 1993), the existence of a homogenous shared belief structure in the pulp and paper industry can be assumed.

Taken together, these arguments are, hopefully, a good way of defining the empirical context of this study but, as stated in chapter two, the boundaries of these contexts can fluctuate in the long term perspective - a conclusion which became apparent during the study. These fluctuations are discussed further in chapter seven.
4. The Swedish pulp and paper industry

4.1 Introduction

In this chapter the development of the Swedish pulp and paper industry (P&P industry, in the following) is examined. More information is included in chapters 5-8 together with an analysis of the empirical material. The empirical data is organised chronologically. The ambition is thus to follow the guidelines presented in the theoretical framework.

After this introduction a short historical outline of the industry's evolution is given in section 4.2. The aim is to familiarise the reader with the industry - some overall trends - and the vocabulary used. As mentioned in chapter three, the remaining part of the chapter is divided into four sections, as illustrated below. As an introduction to each period the societal context of the P&P industry is given, followed by a description of the industry context. In the end issues are summarised. Issues emerging from this categorisation are further analysed in chapter five.

Within each of these four sections the issues are organised broadly
according to the triangulation process described in chapter three.

Figure 4.1. The structure of chapter four

4.2 A brief summary of the Swedish pulp and paper industry

4.2.1 The pulp and paper industry prior to 1945

The technology of making paper from wood fibres was developed in the middle of the 19th century\textsuperscript{67} up to which time the main raw material for the production of paper had been textile (rags). Wood fibres were first used in Sweden as raw material for paper making in the South east, which was the traditional paper producing area (Lindberg, 1951). In this part of the country the industry was dominated by small paper mills, often with integrated production of pulp and paper. As the demand for pulp increased the large number of saw mill companies in the north of Sweden also started to produce pulp. Many pulp mills were therefore built along the coast of northern Sweden. During the first twelve years of the century, 16 pulp mills were established in northern Sweden, all located close to an existing saw mill. It is interesting to note that although papermaking

\textsuperscript{67} This outline is mainly based on Melander (1997). For further studies of the history of papermaking see Rudin (1987). For an overview of the history of the Swedish pulp and paper industry see Rydberg (1990) and Petersson C. (1996).
technology even at that time was capable of building large units, these pulp mills were quite small (Glete, 1987).

The pulp producers in the North were mainly interested in supplying international markets. The US, Great Britain\(^{68}\) and Germany soon became large markets for pulp from Sweden (so called market pulp). In the Southern and Central Sweden the mills produced a diversity of paper products which were mainly sold on the domestic market. Newsprint and kraftpaper were traditionally two examples of important export products and 75% of the total production of these grades were exported in 1920 (SCPF Market Survey 1973). During the period between the two world wars the production capacity of the P&P industry increased substantially. At the end of this period (1939) the industry was mainly concentrated in two geographical areas; one located in the southern and western parts of Sweden (below named South) and one, primarily along the coast of northern Sweden (below named North). In the South the mills had an integrated production of pulp and paper. Most of these mills, and the companies owning them, were however small. A few exceptions existed. Holmens Bruk AB\(^{69}\) (Norrköping and Hallsta) and Stora Kopparberg\(^{70}\) (Kvarnsveden)\(^{71}\) were large producers of newsprint. Holmen, Fiskeby and Munksjö were the largest producers of kraftpaper in the country. Billerud and Uddeholm are also worth mentioning since these companies were also among the largest. These two companies dominated the production of specialised pulp grades.\(^{72}\)

In the North, the overwhelming number of pulp mills were located along the coast. In the period 1936-1939, 60% of Swedish pulp was produced in this region. Of the total production 2% was used within the region, 2% was sold to other domestic areas and 96% was sold to the international markets. In 1944 there were more than 200 mills

\(^{68}\) Great Britain will be used in the text and thus no distinction is made between England, Scotland, Wales and Northern Ireland.

\(^{69}\) From now on named Holmen.

\(^{70}\) The name at this time was Stora Kopparbergs Bergslags AB. From now on the present name STORA will be used.

\(^{71}\) STORA was also a large producer of market pulp (Skutskär).

\(^{72}\) The main quality was viscose pulp made by the sulphite method and the basis for the production of rayon. Uddeholm and STORA were also large actors in the steel industry.
producing pulp and/or paper. Among the largest companies running pulp mills were Svenska Cellulosa AB (SCA), Mo och Domsjö AB (MoDo), Wifstavarf, Bergvik och Ala Nya AB, Korsnäs AB, AB Iggesunds Bruk and Kopparfors. SCA, founded in 1929, was by far the largest producer.

The large sawmill companies in the North started their production of pulp as a complementary business. The main reason for this was the increasing demand for pulp in Europe together with the availability of wood in the North. During a long period sawmill companies had been acquiring areas of forest land that could now be used to produce both pulp wood and timber. In 1906, however, a law was introduced, forbidding public companies to acquire forest land, which helped to stabilise the ownership structure in Sweden (Stridsberg och Mattsson, 1980:83).

In the following survey from 1951, the ownership of the Swedish forests is divided into three categories; Public forests (forests owned by the State or the Church), Company owned forests and privately owned forests (forests mainly owned by farmers). The dominance of private owners in the south and companies/public owners in the north is obvious.

Table 4.1. Ownership structure of Swedish forests in 1951

<table>
<thead>
<tr>
<th>Geographic domain/owner category</th>
<th>Size of forest land per region; in square kilometres and percent of</th>
<th>Publicly owned forests in square kilometres and percent of total area in</th>
<th>Company owned forests in square kilometres and percent of total area in</th>
<th>Privately owned forests in square kilometres and percent of total area in</th>
</tr>
</thead>
</table>

73 The exact figure is difficult to identify as the classifications differ. Rydberg (1990) argues that there were more than 250 pulp mills in the middle of the 1940's. However in that figure units producing both paper and pulp are included. In Svensk Skogsindustri i omvandling, (1971) it is reported that there were 129 pulp mills and 80 paper mills in operation in the early 1960's. See also Clemenson (1948)
74 When the saw mill industry was founded in the North the availability of mature and grown timber was good. The increasing demand for pulp in Western Europe coincided with the time when the saw mill industry experienced the increasing shortage of these large sized trees. Björklund (1992) illustrates the effects of this change on the development of the P&P industry.
75 The law first included the most northerly parts of the country but was gradually extended. In 1925 legislation covered the entire country.
In 1903 a law regulating forestry was passed by the Swedish Parliament, stating that,

"In regard to areas of forest in the ownership of private individuals and companies, felling, harvesting, and clearing may solely be performed and undertaken in such a way and by using such methods that the future regrowth of the forest area in question could not under any circumstances be endangered". (Lag den 24 juli 1903 ang vård av enskildes skogar: paragraf 1)

However, lack of regulation prior to the 1903 law and the methods used in thinning the forests until the 1950's, resulted in an uneven distribution over age classes. The result was that in the 1940's a shortage of wood could be foreseen.

Trade organisations of the P&P industry were formed during the period 1890-1920. the Swedish Cellulose Association (SCF) was founded in 1891 as was the Swedish Paper Mills’ Association (SPF). These were the two dominating trade associations, which safeguarded

---

76 The distribution here described was stable until 1993 when a large part of the state owned forests were transferred to a public company (AssiDomän). The State kept a substantial share of this new company, which was established through a merger between Assi, Domänverket and Ncb.
the interests of the pulp and paper producers.\textsuperscript{77} Within a few years the majority of Swedish pulp and paper producers had become members (Rydberg, 1990). SPCI (Swedish Association of Pulp and Paper Engineers) founded in 1908 should also be mentioned. The aim of this association was to contribute to the development of the industry by improving technical knowledge. In many respects SPCI is a unique industry based organisation.\textsuperscript{78}

As export was considered as a vital issue for the industry, a number of co-operative arrangements (mainly on a national or Nordic base) were made to increase awareness about international conditions, to regulate trade rules, to lobby against protectionist regulations and to agree on prices and production volumes to avoid extreme business fluctuations. These co-operative arrangements were more or less successful. As far as market pulp producers\textsuperscript{79} were concerned, the trade association dealt with these questions, and the degree of co-operation varied depending on the market situation. Because paper was a more heterogeneous product group, producers of various paper grades organised their co-operation by forming so called "Conventions" (in the 1920's), within which they agreed trade rules, prices and production volumes. Gradually, this arrangement was expanded to include Norway and Finland, with the foundation of Scankraft in 1932 as the first step. During the Second World War most of the these arrangements were made by direct negotiations with the Swedish authorities.

"As we have already seen, the purpose of the formation of these different associations were obvious and quite open attempts to create cartels. This was completely in accordance with the then current

\textsuperscript{77} The Swedish Wood Pulp Association (Svenska Trämassesällskapet), founded in 1890, represented the producers of mechanical pulp grades. From this organisation SCF emerged a year later. Over the years SCF became the dominating trade association and Svenska Trämassesällskapet was gradually becoming a part of SCF. It must also be noted that the industry at an early stage separated trade issues from responsibilities towards the employees. The later subject was dealt with in separate organisations founded in the beginning of the 20th century.

\textsuperscript{78} Similar organisations can be found in Finland, Norway and North America. They are rare outside the P&P industry.

\textsuperscript{79} A market pulp producer specialises in the production of pulp and sells this mainly on international markets.
economic philosophy, and could be seen in many other industries. Uncontrolled competition - it was assumed - would lead to a collapse in price levels with subsequent serious business and commercial consequences.” (Rydberg, 1990:71)

However as stated above, the ability to control and influence the market was not the only reason for co-operation in trade issues. The increase in the awareness of conditions in foreign markets and the establishment of trade rules were also important driving forces towards co-operation. Löwegren describes how the pulp and paper trade became a part of international politics.

"How could it be possible, that chemical pulp, which could be refined and processed into many other products, was only sold to export customers as a semi-manufactured material....The question is easily answered. Even the most knowledgeable experts would reply as follows: The greater the added value of a product, the higher the customs barriers raised against its importation in international trade. As our forests are the raw material in Sweden for processing into pulp - i.e. semi-manufacture, this pulp in turn has been regarded for many years as a raw material by overseas purchasers and industries. Any change in this present relationship, this status quo, could easily result in the imposition of protectionist measures which could prove less than desirable for Sweden.” (Löwegren, 1945:32)

The Joint Committee of the Swedish Forest Industries (Skogsindustriernas samarbetsutskott (SISU))\(^8\) can be used to illustrate the close co-operation among the pulp and paper producers. The purpose of this committee was to co-ordinate policy regarding issues of interest to pulp, paper, sawmills and other wood processing companies. Sometimes conflicting interests were obviously apparent (for instance the price of market pulp on the domestic market) but in many areas interests coincided. SISU took an active part in areas such as forestry, transportation and energy supply.

Domestic co-operation was mainly concerned with the technical development of the industry. As described in section 4.3 several attempts were made to found a joint research organisation during the

---

\(^8\) The organisation was founded in 1933 (Stridsberg and Mattsson, 1980:112).
period 1917-1945. The wood pulp research office (Pappersmasse-kontoret) was founded in 1917/18 but closed in 1922 due to financial problems (Sundin, 1981:160). The first Professorship in paper and pulp related research was installed in 1931. These attempts to organise industry wide research were mainly due to the rapid technical development of the industry. Efficiency was also increasing, and Boseaus (1949:157) reports that the volume of pulp produced by each employee per hour increased by a factor of 2.87 during the period 1915-1937. Anstrin (1949:203) describes a similar evolution in the increase of paper production. As technology advanced, the need for highly educated technicians and more basic research became evident. These requirements could only be fulfilled by a joint research institute for the whole industry.

4.2.2 The Swedish pulp and paper industry after 1945

In 1994, 102,000 workers were employed in Swedish pulp and paper companies, and of these some 53,000 were employed outside Sweden. However, even if the industry seems small in its number of employees, it is of vital importance to the Swedish economy. The P&P industry is the largest net contributor to the Swedish trade balance. In 1995, the export surplus of SEK 59.2 Billion (i.e. only pulp and paper)\textsuperscript{81} can be compared with the transport industry (including Volvo, Saab Automobile and Scania) of SEK 35.8 Billion and the engineering industry (including companies such as Electrolux, SKF, Atlas Copco) of SEK 38.7 Billion.

\textbf{Figure 4.2. Net contribution to the balance of trade}

\textsuperscript{81} Described in the following figure is the export surplus 77.8 Billion SEK when the entire forest industry is included. The figure +59.2 is the total of the combined export values for paper and pulp products reduced by the import value of the same products.
The importance of the Swedish P&P industry as a net exporter becomes evident taking into account that wood from the Swedish forests is the major raw material in the production of pulp and paper. Furthermore low priced energy, produced mainly by hydro-electric and nuclear power stations (since the 1970’s) adds to this advantage. The third most important production factor is labour. Because of these factors the often quoted statement of the industry that "the Swedish P&P industry gives added value to Swedish natural resources" makes sense.

In the international perspective Sweden is one of the large actors on

---

82 The trade association express this in the following way "Sweden - The Woodyard of Europe" (Skogsindustrierna, Overhead information, 1995). The growing stock of wood in Sweden is for example about nine times greater than that of Germany.
the global pulp and paper market. Based on production capacity, the
US, Canada, China and Sweden are the four largest producers of pulp
in the world, and Sweden is the seventh largest producer of paper in
the world. World trade in pulp and paper can be divided in three
regions. In North America, the US and Canada dominate trade and the
same applies to the Asian region even if the total volume traded in this
region is comparatively small.\textsuperscript{83} The West European region is
dominated by exports from Sweden, Finland and Norway. In a global
perspective Sweden is the third largest exporter of both paper and
pulp. In 1994, 26.7% of the pulp and 82% of the paper produced in
Sweden are sold on international markets.\textsuperscript{84}

The present trade pattern is a result of changes occurring during the
Second World War. In 1937 (the last year trade was unaffected by the
Second World War) Swedish exports to the US were 28% of the total
volume of pulp and paper exported (About 45% of total pulp export).
In 1953 the volume of pulp exported to the US was only 13% of the
total export. At that time 9% was exported to Latin America and 72%
to Western Europe. In 1969 deliveries to the US and Latin America
were down to 3% and those to Western Europe had increased to 87%.
This pattern remained constant during the 1970's and 1980's. (Skogs-
industrierna, Annual Report, 1995; Svensk Skogsindustri i

An increasing globalisation of the industry has been taking place
during the last decades. In 1945 the export percentage was large but
international operations needed only a few overseas sales
representatives (the products were mainly sold by trade agents). In
1994, about 50% of employees in the large companies were employed
outside Sweden. More than 200 mills and 40% of the total production
capacity were located outside Sweden (Skogsindustrierna Annual
Report, 1995).

\textbf{Pulp and paper - production and products}
Pulp and paper products are divided in five main product groups. Pulp

\textsuperscript{83} A growing part of the trade involves Japanese companies with production
facilities in Canada and the US.

\textsuperscript{84} Regarding paper products Scandinavia is by far the largest exporting region in the
world. Scandinavia totals about 25% of the world trade in paper.
is divided into mechanical and chemical pulp. Mechanical pulping is the oldest technology in which wood fibres are separated by a mechanical process. The wood yield is high using this process, but this is reflected in the high energy consumption. Spruce is preferred as a raw material. Historically, mechanical pulp has mainly been used for the production of newsprint but further development of the production process has widened this usage to involve an extended range of paper products.

Chemical pulp is traditionally divided into sulphite and sulphate, indicating which technical process has been used in making the pulp. The production of sulphite pulp has decreased during the last decades, and sulphate pulp is now the dominating process. Bleached pulp - required for the production of white paper - means that the chemical cost is higher and the detrimental effects on the environment more pronounced. Depending on the raw material used (mainly Spruce, Pine and Birch) a wide range of products can be produced from sulphate pulp. The main emphasis, however is on products that demand high brightness and strength. Chemical pulp grades have a higher production cost and are more hazardous to the environment and thus subject to more regulation. The process is however almost self supporting regarding energy usage. It is principally bleached sulphate which is traded internationally and it is this grade that is generally referred to when prices of market pulp are quoted in any public debate.

After the end of the Second World War alternatives to traditional pulp grades have been developed. TMP (Thermo Mechanical Pulp) is today the most important base for the production of newsprint. CTMP (Chemical Thermo Mechanical Pulp) is used mainly for hygiene products and board. Semi-Chemical pulp is used in the production of special purpose board. The reason for the development of these grades is the attempt to combine the high yield of the mechanical grades with the brightness and strength of the chemical pulp grades (Waluszewski, 1989).

---

85 Using a grindstone or disc refiner.
86 In the last few years the technical development of pulp mills using the sulphate process has been very successful regarding energy consumption. Recently the surplus of energy in the process has become large enough to be sold on the open market (cf Dagens Nyheter 1996 September 23).
In recent years, pulp made from recycled paper has become increasingly important. Recycled paper, or waste paper as it was called in the 1950’s and 60’s, has always been a traditional raw material for the industry. The increase in usage is however now showing a growth from about 40,000 tons in 1937 to some 1,000,000 tons in 1994. (Svensk Papperstidning, 1952:13; Skogsindustrierna Annual Report, 1995). In 1993, 15% of the raw material requirements for paper making came from recycled paper. Recycled paper, however, needs to undergo an advanced technical process in which the fibres are separated from ink, metals and plastic substances. The latter (plastic) is today the main separation problem. Recycled paper is used mainly in the production of board and tissue. During the last fifteen years consumption has been increasing in other product areas, particularly newsprint.

The production of paper can be divided in four product areas, kraftpaper, board, printing and writing paper and tissue/hygiene. Kraftpaper is used for the production of wrapping paper and sacks (about 11% of the total volume of paper products produced in 1995). A type of kraftpaper is also used when producing corrugated board (about 20% of total volume in 1995). A specific type of kraftpaper is used for the outer layers of corrugated board. This type of paper is called kraftliner, when made from virgin fibre, and testliner when recycled paper is used. The middle, corrugated layer of the corrugated board is called fluting, which is often made from semi-chemical pulp, waste paper or a combination of these. Board grades are used for general packaging (about 15% of total volume in 1995), such as consumer packages, and packaging of liquids. In the latter category the board is often combined together with plastic materials.

The third product area is printing and writing papers including newsprint, magazine paper and other printing and writing paper. Traditionally newsprint has been the dominating paper grade produced in Sweden (25% of the total volume in 1995). Originally newsprint was made with 80-85% mechanical pulp, combined with 15-20% semi-bleached sulphate (or sulphite) pulp. Today newsprint is made of up to 100% TMP. In magazine paper the proportion of chemical pulp is higher and clay is often included in the production process to reduce the raw material cost and to improve the opacity of the paper. Printing and writing papers are mainly based on chemical pulp. The demand for brightness and opacity is high in these products. The international
market for the latter two grades has shown a significant increase in demand during the last 20 years.

The fourth area is tissue and hygiene paper, which consists of a wide range of products. The dominating grades are toilet paper, facial tissue, wiping tissue, diapers and serviettes, but the tissue and hygiene area also include a wide range of specialised products used in, for example, the hospital sector. Sweden is a minor producer within this product area.

All the markets and applications for paper products cannot be covered in a brief review such as this. However main product groups and usages are included. The Swedish production of pulp and paper in 1994 is below compared with the output in 1950. Export volume percentages have also been noted. 1950 has been chosen as the base year since it was the first year following the Second World War in which pulp and paper production regained pre-war volumes.

### Table 4.2. The production and export of pulp in 1950 and 1994

<table>
<thead>
<tr>
<th>Product</th>
<th>Production 1950 (million tons)</th>
<th>Export share of production (%)</th>
<th>Production 1994 (million tons)</th>
<th>Export share of production (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-chemical pulp</td>
<td>---</td>
<td>---</td>
<td>0.3</td>
<td>0</td>
</tr>
<tr>
<td>Sulphite pulp</td>
<td>1.4</td>
<td>79</td>
<td>0.7</td>
<td>36</td>
</tr>
<tr>
<td>Sulphate pulp</td>
<td>1</td>
<td>65</td>
<td>6.2</td>
<td>38</td>
</tr>
<tr>
<td>Mechanical pulp</td>
<td>0.7</td>
<td>39</td>
<td>2.9</td>
<td>9</td>
</tr>
<tr>
<td>Total pulp</td>
<td>3.1</td>
<td>67</td>
<td>10.1</td>
<td>29</td>
</tr>
</tbody>
</table>


### Table 4.3. The production and export of paper in 1950 and 1994

<table>
<thead>
<tr>
<th>Products</th>
<th>Production 1950 (million tons)</th>
<th>Export share of production (%)</th>
<th>Production 1994 (million tons)</th>
<th>Export share of production (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miscellaneous</td>
<td>0.25</td>
<td>62</td>
<td>0.4</td>
<td>75</td>
</tr>
</tbody>
</table>

87 Including the production of dissolving pulp.
As we can see the P&P industry has undergone large changes during the post war period. Basically, the emphasis has switched from pulp to paper. The extensive integration of pulp production together with paper production is an obvious trend. In 1945, 30% of pulp produced at the pulp mills was integrated with the production of paper. In 1995, 67% of the pulp was integrated with paper production. One result of this increasing integration was that the two trade associations, SCF and SPF merged in 1967/68 (Skogsindustrierna, Annual Report, 1995; SCPF, Market Survey, 1970). The new, combined organisation was initially known as SCPF, The Swedish Cellulose and Paper Association (Svenska Cellulosa och Pappersbruksföreningen). In 1988 the name was changed to Skogsindustrierna.

As noted above major changes in production structure also occurred after the war. During this period the output per employee increased substantially. In 1945 the industry employed 33,700 people (Sveriges Industri, 1948:137) and the total volume produced was 2,750,000 tons. In 1994 the number of employees was 34,000 and the total volume produced 19,300,000 tons (Skogsindustrierna, Annual Report, 1995; SCPF, Market Survey, 1970).

The increasing production capacity of the industry was accompanied by a corresponding development in process technology. In the 1950’s the production capacity of a new newsprint machine was 90,000 tons a year (Ortviken, 1958 and 1959) In 1995 a new newsprint machine had

---

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wrapping paper</td>
<td>0.3</td>
<td>74</td>
<td>1.0</td>
<td>86</td>
</tr>
<tr>
<td>(in 1950 called kraft paper)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board (in 1950 included in cardboard)</td>
<td>---</td>
<td>---</td>
<td>1.5</td>
<td>83</td>
</tr>
<tr>
<td>Corrugated cardboard (including fluting and liner)</td>
<td>0.2</td>
<td>62</td>
<td>1.9</td>
<td>84</td>
</tr>
<tr>
<td>Printing paper (excluding newsprint)</td>
<td>0.13</td>
<td>37</td>
<td>2.1</td>
<td>82</td>
</tr>
<tr>
<td>Newsprint</td>
<td>0.3</td>
<td>63</td>
<td>2.4</td>
<td>84</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1.2</td>
<td>63</td>
<td>9.3</td>
<td>83</td>
</tr>
</tbody>
</table>


---

88 The figure 34,000 refers to those directly employed in pulp and paper production. The total number employed in pulp and paper companies in Sweden was 49,000.
a capacity of about 270,000 tons a year (Braviken, 1996). Similar trends can be seen for other paper grades as well as in the production of pulp. Apart from the increased size of the mills technical developments made the machines more reliable and their speed could therefore be substantially increased. The change from intermittent to continuous production, including production during public holidays, also increased the output.

This survey of the development of the Swedish P&P industry will hopefully serve as an introduction to the industry and the terminology used, thus facilitating further reading. Obviously a number of the trends shown above will recur in the following, more detailed, description.

4.3 1945 - 1958 From war to the investment boom

4.3.1 The Swedish social and economic development 1945-1958

When World War Two ended in May 1945, Sweden had been planning for the post-war period for some time. The first attempt to initiate an organised plan was taken by the government in 1943. The origin of this planning and the political and social debate that followed during the implementation 1945-1958 can however be traced to the 1930’s (Lewin, 1967). The Social Democrats dominated the debate, stressing the ideas of full employment and a policy aiming to stabilise the economy - inspired by Keynes. In the Social Democrat’s post war programme, presented in 1944, these ideas were the basis of their
ideological policy. They were also complemented by far-reaching proposals concerning how the long-term development of the Swedish economy should be governed by the state. Their basic philosophy was that government involvement was necessary to increase productivity and international competitiveness in the industry.

"It is well known that Social Democracy wants to use the increasing influence of the State over business and commercial interests to ensure an efficient and complete utilisation of the productive resources of the country, but it does not therefore follow that the State will own or control all property, or that all economic activity will be governed and supervised by a centralised economic administration. The role of the state in economic questions and policies is to assist and encourage the greatest possible efficiency, and is justified only as long as it is able to successfully perform this function." (The post war programme of the labour movement (Arbetarrörelsens efterkrigsprogram), 1944:198)

In 1944-1948 the Social Democrat's programme dominated the political arena in Sweden (Lewin, 1967). The conservative parties and the industry argued that their programme was a step towards a completely socialised state. Parallels were drawn with Hitler's Germany and the Soviet Union. This was rejected by the Social Democrats who maintained that a planned economy and a socialised economy were two different things (Lewin, 1967). One of the most important arguments in the social democratic programme, and governmental post war planning, was the need for the rationalisation of the industry. Industry based rationalisation (Branschrationalisering) was seen as an effective and necessary action which was needed in many industries (cf Höglund et al, 1958). This was however a pragmatic argument that was also attractive to industrialists (cf Svennilson and Waldenström, 1942). The proposed rationalisation was intended to increase competition and thus lead to the abandonment of cartels and other forms of organised co-operation between different companies. An effective way to compel the industrial community to take action to comply with this programme was the threat of government intervention.

The fear of an economic depression after the war, as had happened after the Great War, was the base for the acceptance of government intervention at the end of World War Two (Lundberg, 1994). However
the surprisingly strong international demand made any economic stimulation unnecessary and on the contrary the rise in the value of the Swedish krona by 17% in 1947 can be used as an example of how the government tried to combat inflationary tendencies in the economy. From that time, economic policy encouraged increased export, but restricted domestic growth. Restrictions were formulated as regulations (mainly price, import and building regulations) at the end of the 1940’s.

Problems of how to control the Swedish economy and the debate concerning the level of socialisation of society made the 1948 election campaign very intensive. The Social Democrats gained power after the election, but they had lost some of their support to the Liberal party that had become the largest opposition party (Lewin, 1967:264). The effects of the election and the unexpected growth of the economy after the Second World War, made the Social Democrats’ ideas of a planned economy and a planned rationalisation of industry difficult to attain. According to Lewin (1967:334) the effect of this was that they had to re-think and revise their policies until the 1960’s when they started a new initiative. The coalition between the Social Democrat party and the Farmers party (Bondeförbundet) in 1951 contributed to this. The 1950’s can therefore be described as a period without any major political differences (Hadenius, 1996).

Great Britain devalued the pound in relation to the US dollar in 1949, Sweden, among other countries followed. This was to become the only change of exchange rates until 1971, an effect of the Bretton Woods agreement (Myhrman, 1994). The devaluation of the Swedish currency by 30% and the Korean war which started in the summer of 1950 resulted in an increase of export volumes by 25%. This boom, however, soon turned into a recession. In some industrial sectors, the down-turn came in 1951 but in the P&P industry the effects of the recession only became apparent in 1952. The decrease of export and industrial production in 1952, however, soon changed into a growing demand in 1954 and 1955 (Myhrman and Söderström, 1982:87). As the business cycle shifted, the government implemented an anti-cyclical economic policy. Some of the actions taken by the government were to increase interest rates and to introduce an

---

89 The coalition ended in 1957. After that the Social Democrats had their own majority.
investment surcharge. At the same time the government also initiated a policy in which companies, given favourable terms, were able to fund investment money. These savings were to be used when the next recession occurred. These accumulated funds were, however, also to be used to benefit employees and they became an important factor in the increase in research and development as well as in higher education. The latter was important as there was a consensus concerning the need to emphasise research and education at this time (Hadenius, 1996). The investment surcharge was suspended in 1957/58 when the economy stagnated. In 1958 investments increased dramatically (Myhrman and Söderström, 1982) - an investment boom which coincided with the worst recession since the 1930’s. Because of this boom the rate of unemployment remained low, which was given as the proof of the advantage of an anti-cyclical economic policy (Myhrman, 1994:163).

One important effect resulting from the ideas about increased rationalisation was the new agricultural policy decided upon in 1947, against the background of increasing productivity and thus increasing wage levels. Small scale farming, a dominating occupation at this time, did not match the development in other sectors. An increasing urbanisation was the obvious result. The new policy aimed to encourage the rationalisation of farming, in order to create larger competitive units. In the south of Sweden small farms, often combining both agriculture and forestry were dominating. Increasing rationalisation and mechanisation, however, required large scale forestry. Existing laws from the beginning of the century, however, prevented limited companies from acquiring forests from private owners (see section 4.2). As a result of this situation a debate was initiated in the 1950’s with the intention of changing these laws. It was claimed that, if this change was implemented urbanisation would accelerate. As will be shown in the following, the P&P industry was greatly affected by the steps taken by farmers to meet these threats.

"The small owners - farmers etc.- defended themselves against the encroachments and attacks from both the large corporate forest owners and those factions within the Trade Union Confederation calling for increased public ownership. Co-operation and market adjustment were increasingly used as measures to meet demands for increased productivity." (Larsson, 1994: 101)
The general focus of the debate was what the conservatives considered an increasing socialisation of the country. They accused the Social Democrats of instituting laws and regulations that restricted free market forces more than necessary. Other opinions urged representatives from the industrial community to take an active part in the political debate. Tore Browaldh and Axel Iveroth were two of many arguing for a constructive debate with active participation from the industrial sector (Lewin, 1967:378 ff.). One result of this move towards consensus was the instigation of the "Harpsund Meetings" in 1952, which were annual meetings between the Government and leading representatives of the industrial community.

"In this secluded and peaceful setting representatives from government and industry could meet to discuss, clarify and resolve any problems or misunderstandings concerning the industrial policy." (Elvander, 1966:190)

The trend towards consensus and the climate of understanding did not emerge without controversy. Lewin (1967) states that the development seen during the 1950’s was considered by many as a lack of new ideas and an ideological retreat.

Before we leave the societal level and focus on the issues concerning the P&P industry a final word about the focus on planning in this period. Lewin (1967) examining the ideological development of Swedish society after the war shows how the methods needed to attain the desired results changed. One example of this were the long-term plans (Långtidsutredningarna). The first, from 1947 examined the period 1947-1952, and thereafter plans were drawn up for subsequent five year periods. These plans reflected the increasing number of forecasts being made concerning international markets. The original use of these was to provide an objective overview of the future and to provide information for politicians in their planning. However, any publication of an official forecast can, in itself, be the instrument and cause of change as Lundberg (1994) argues. This tendency to rely on official "accurate" forecasts of the future was part of the trend of regarding planning as increasingly important to enhance social and
industrial development (Lundberg, 1994).\textsuperscript{90}

\textbf{4.3.2 The pulp and paper industry 1945-1958}

\textbf{A time of regulation}

During the war, the trade associations negotiated directly with the government on a number of issues. The industrial co-operation during the pre-war period, as noted in the introduction, allowed this arrangement to be successful. The organisational structures (i.e. the trade associations) were used by the government to regulate the companies in the industry in several ways:

"It is no longer a question of the regulation, control or even opposition to these associations, but one of how best they can be used....They have, already, during World War Two, in many respects, acted and functioned as state bodies." (Heckscher, 1946:255)

The most important methods were the granting of export licenses, the allocation of fuel and other scarce resources, the regulation of production volumes and the pricing of products. When the war ended, expectations were that the societal control in these areas would also end. This was, however, not the case. Ewert Landberg, the CEO of SPF commented on the situation in 1947:\textsuperscript{91}

"Restrictions thrived: The agreement concluded between The National Swedish Fuel Commission (Bränslekommissionen) and SPF meant, in reality, a complete rationing of paper, based on requisitions, enforced deliveries and resource allocation." (Landberg, 1990:15)

Christian von Sydow, the CEO of Holmen,\textsuperscript{92} showed the effects of all these regulations when he described the administrational requirements in 1949. He had recorded the number of written answers and forms sent from Holmen to governmental authorities in 1944. The result was

\textsuperscript{90} This subject will be further discussed in chapter six.
\textsuperscript{91} Ewert Landberg, CEO of SPF 1946-1968.
an average of 12 per day. Without claiming any exactitude in a similar survey he found that the number of written reports had increased to between 30-45 replies per day in 1949. He concluded therefore that the many regulations necessary in times of war, were increased in times of peace! (Sydow, 1949:184ff).

These regulations and controls were an attempt to use the P&P industry as part of an overall industrial policy. Considering the figure of 30% of total Swedish export earnings before the war, this is not altogether surprising (Sveriges Industri, 1948). As the policy was to avoid the expected feared depression, industrial growth was encouraged in the period 1945-1947. When this depression failed to materialise, the economic policy had to change. A result of the change was that the P&P industry had to continue to live with regulated prices on the domestic market. The price levels established on the domestic market did not, however, compensate for rising prices for raw material and labour. The idea was that low domestic prices could be compensated by high prices obtainable on international markets, a policy that only worked when international demand was high. As international demand decreased efforts were made by the trade associations to persuade the government to abolish this price regulation. In 1950, the government finally allowed parity between domestic and international prices.

The contacts between the trade associations and the governmental authorities during this period included a number of direct negotiations with the Minister of Trade and the Minister of Finance. The subject of these negotiations were often the surcharges attempting to equalise the effects of business cycles (Konjunkturutjämningsavgifter). As the pulp and paper companies became free to set prices on export markets in 1947, a system needed to be established to balance the effects of the large incomes during the export boom that followed. A system was therefore introduced by which the industry had to pay taxes into an account when profits from international sales exceeded a certain level. Initially the system was only applied to income from the sale of market pulp, but since the international demand for market pulp was low in 1948 and 1949, the fees were consequently also low. However in 1950, as a result of the Korean war, the international market for paper and pulp boomed.

At that time the government then called for new negotiations about the level of surcharges. Increasing profit levels had given the
government cause to fear an increasing inflation. These increasing profits in the P&P industry were also the question of public concern. Consequently, voices arguing for higher taxation on the P&P industry were heard. Lars Sjunnesson (1951) commented on the debate in a promemoria, as follows.93

"The current debate implies a considerable risk of further governmental interference in the forest industries. It is extremely probable that the government will endeavour to reach some sort of accord with the Trade Union Confederation regarding economic policy. This would - if satisfying the demands of the TUC - be financed by all our export industries, but in particular the forest industry". (Sjunnesson, 1951:2)

After long negotiations, a new system similar to the one introduced in 1947 came into effect at the end of 1950, which also included the paper manufacturers. The high level of fees in 1951/52 enabled the funds to grow quickly, and they were later used for investments, social improvements within the industry, or utilised during following recessionary periods.

In 1951 when these funds totalled about SEK 140 million, the agreement was renegotiated. These negotiations were a substantial part of the trade associations activities. 50% of the paragraphs from the minutes of SCF and SPF board meetings during 1951 dealt with issues relating to this agreement. The result of the negotiations was that a percentage of the surcharge already paid became subject to normal taxation, i.e. they became part of Government revenue. The remainder was to be repaid from 1958 and during the next five year period. A total of SEK 1,270 Million had been reserved during the period 1947-1952. Two thirds of this was therefore transferred back to the companies, which needed to invest heavily to meet growing international competition.

When the business cycle changed in 1952 these surcharges were abolished and the industry, and its trade associations became increasingly involved in the debate about the overall cost levels in Sweden and investment policies implemented by the government in

---

93 Sjunnesson was employed by SCF 1944-1952 and 1956-1968 (the latter period as CEO). During 1968-1978 Sjunnesson was CEO of SCF, and 1980-81 chairman of the Board.
"Generally speaking, the economic conditions in Sweden at present are such that our country - with the highest industrial wages in Europe - will no doubt have to face quite important problems in case of participation as well as non-participation (in a European free trade area)." (Landberg, 1957).

Cost levels were often mentioned in speeches held by top executives during this period (cf Sydow, 1952; Enström, 1952b; Danielsson, 1955). Cost increases due to increasing wages and selective taxes, together with changes in legislation regulating investments, made the financing of major projects extremely difficult.

"It is not only enough to maintain our present production structure and existing production facilities. They must be continuously improved, updated and developed. But, in the present business climate, seemingly insuperable difficulties in raising the necessary investment capital prevent us from doing this." (Abenius, 1957:3).

Håkan Abenius, CEO of STORA, expanded this argument, blaming the taxation system and high interest rates. The situation in 1957-58 was paradoxical: Finland and the US had been investing heavily in new machinery: Thus similar investment levels were seen as the only way for the Swedish P&P industry to stay competitive.

"To compete means, in many respects, the ability to invest. This does not only mean the renewal and refurbishment of old, out of date production facilities, but also the ability to keep up with the latest developments in quality and quantity production levels. However, in spite of this, a punitive rationing policy has been imposed on investments, and many extremely profitable projects have had to be postponed. Management and owners discontent with governmental taxation and credit policies, has, during the last few years, been expressed time and time again with monotonous regularity. This must not however prevent us from

95 Nils Danielsson, CEO of Uddeholm 1943-1956.
demanding, during 1959, a more benevolent and understanding attitude from government authorities towards trade and industry." (Pihlgren 1958:4)\(^97\)

Åke Pihlgrens comment in 1958 was made following a change in the investment regulations. At this point however, the funds set aside at the beginning of the decade had become available and consequently, in 1958 and 1959, investments increased substantially. New investments in the P&P industry increased by 75% in the period 1958 to 1961 (Svensk Skogsindustri i omvandling, 1971:121).

**An export boom**

Negotiations with the government during this period were one of the most important functions of the trade associations, together with their other major aim - to promote exports. The trade associations thus had two main functions; to improve Swedish conditions for export, and to negotiate favourable international trade agreements. As the war came to an end, optimism concerning a rapid increase in export volumes was evident. However, in the annual report for 1945, SPF complained about the slow development of international trade.

"It soon however became obvious that the resumption of trading links and relationships in many of our previous markets progressed much more slowly, and was subject to many more difficulties than had been foreseen." (SPF, Annual Report 1945:3)

As seem above, the interventionist policy implemented by the Swedish government had influenced the export of pulp and paper. The government restricted export volumes of paper by means of export licenses. The paper companies applied, via SPF, for 25 - 30,000 licenses in 1945-1950, which is a reflection of the bureaucratic and administrative difficulties experienced at this time. Carl Kempe, CEO of MoDo,\(^98\) commented on the administration in 1948, at the time when the governmental policy was supposed to encourage increased

\(^{97}\) Åke Pihlgren, CEO of Billerud 1956-1966.  
"The complicated regulatory machinery time after time causes problems for companies trying to export their production. A seemingly infinite succession of, without doubt, competent bureaucrats, have to be contacted, visited and persuaded; documents submitted and re-submitted and meetings and conferences held before any export question can be decided. We are increasingly subject to restrictions which hinder the expansion of export instead of providing support for it. Is this the export offensive?" (Kempe C. 1948:1)

The second function of the trade associations was to improve general conditions for international trade and to reduce protectionism. The traditional way of organising international trade was by bilateral agreements, i.e. the Swedish government negotiated conditions individually with each of the most important trading nations. These negotiations were always supported by the trade associations who helped the Swedish negotiators with viewpoints and arguments. In 1947 the role of the P&P industry was upgraded as the trade associations were allowed to be represented at the negotiations (SPF, Annual Report, 1947). This change made the role of the industrial representatives from the trade association much more significant.

Three paragraphs in the SPF annual reports from 1948 and 1949 illustrate the development towards increasing multinational negotiations in trade and politics. The introduction of the Marshall Plan and the Organisation for European Economic Co-operation (OEEC) in 1947 together with the GATT (General Agreement on Tariffs and Trades) negotiations which started in 1949 are both examples of international agreements that would be of great importance in the development of the Swedish P&P industry in the years to come (cf Hall, 1951). However the intended increased liberalisation of trade was not attained in the next few years. In 1952 many major importers complained about the prices of pulp and paper from Sweden and Finland. These complaints mirrored a recurrent argument in the industry, i.e. how to share value added when making paper out of market pulp. The two existing strategies were easy to identify.

The pulp and paper industries in Western Europe had for quite some time been arguing in favour of high tariffs on paper and free trade for
pulp. By doing this they were able to buy market pulp at low prices. From the imported pulp they produced paper products, i.e. value was added. In this way they were able to compete successfully with the paper grades imported from the Nordic countries, since the latter were subject to high tariffs.

"The explanation for this can partly be found in the fact that, by implementation of high customs barriers, the Nordic countries with their more than adequate supply of raw materials, would possibly be forced to supply European markets with raw and semi-manufactured material – a thought which re-occurs regularly in the European context." (Landberg 1958:289)

However in 1952 industries in Western Europe were complaining that Nordic producers were taking advantage of the high demand for pulp, which could be sold at high prices on the international market without duties. The high prices allowed the Nordic producers to a) make a high profit: which could be invested in paper machinery - in the short term perspective leading to: b) a long-term situation whereby they could produce paper products at low cost in fully integrated, efficient paper mills. Therefore paper would be sold at prices that would prevent producers in England, France and Germany to compete, being forced to buy high priced pulp as raw material. This was seen as a long-term deliberate policy which would eventually force the paper industries of Germany, France and England out of business. This strategy is often named "the scissors policy" (sax-politiken) or in French the "politique des ciseaux" (SPF, Annual Report, 1966:21; Rundh, 1987:413; Rydberg 1990:96).

Following some years characterised by small advances in the liberalisation of international trade, an agreement in 1957 regarding

99 The term "Nordic countries" refers to Sweden, Finland and Norway. In quotes the term "Scandinavia" occurs. This if not otherwise stated refers to the same countries.

100 It must be noted that the fear of West European protectionism was not equally perceived by all pulp and paper companies in Sweden. The import duties applied only to some paper grades. Most of the production of newsprint was excluded. This was due to the power of the media, constitutional laws and the great demand for this product.
economic co-operation between six West European countries (EEC)\textsuperscript{101} became the starting point for increasing activity. In its 1956 Annual Report, SPF wrote that the issue of the free trade agreement,

"(It) should be one of the most important issues ever faced in the history of the papermaking industry, as its resolution will be crucial for its future position and development." (SPF Annual Report, 1956:4).

The reason for this was that if co-operation was restricted to a few, important countries in Western Europe and not extended by a wider agreement on free trade which would include all of Western Europe, the result could be increased trade barriers for the Swedish P&P industry. Negotiations continued during 1957-1958 and some feelings of frustration with the endless discussions became apparent. In 1958 the idea of a major free trade area in Europe failed to materialise and instead the EEC countries continued with their internal economic integration whereas seven other countries, among them Sweden and Great Britain, started their own free trade negotiations.\textsuperscript{102}

"We can, unfortunately, note one major reverse i.e. the deadlock in negotiations concerning the Western European free trade area. This is extremely serious for the concept of free trade in Europe and particularly for Sweden whose export is overwhelmingly to the six member states (the EEC)." (Pihlgren, 1958:4)

The general opinion within the industry during the period 1956-1958 was that the outcome of international negotiations was vital for the future strategies of the P&P industry. In a speech Axel Enström, when discussing competitive advantages, made the distinction between natural obstacles/advantages and constructed obstacles/advantages. Tariffs were seen as the most important constructed obstacle affecting the northern parts of the Swedish P&P industry. Enström stated that if negotiations led to the abandonment of tariffs in the whole of Western Europe this would lead to a competitive advantage equalling the tariff percentage. The absence of constructed obstacles would in time

\textsuperscript{101} The name has shifted over the years. Here the name European Economic Community (EEC) will be used throughout the text.

\textsuperscript{102} This free trade agreement will from now on be called EFTA.
however lead to an increased integrated production; a trend that would eventually reduce production costs substantially (by about 10%), thereby increasing competitiveness substantially (Enström, 1958)

The organised market

Negotiations between the industry and government were often intended to increase opportunities for the gradual and controlled expansion of the industry. As described in the introduction this was not always successful and instead the industry suffered drastic changes in domestic and international demand. The first major problem of this kind became apparent in 1953.

In 1953103 Sverker Kastrup, Sales Director of SCA suggested to the board of the Swedish Cellulose Association (SCF) that an initiative should be taken to agree on capacity utilisation for 1953. Kastrup argued that the prices were so low that they did not even cover fixed costs. In his opinion, production volumes had to be restricted by about 5-10%. He also suggested a way to implement any such agreement. If the 18 largest manufacturers could come to an agreement, the rest of the industry would be forced to follow. That is, majority rule would be introduced within the association. Production curtailment could be followed by a more "intimate co-operation in determining prices", to counteract rumours in the trade concerning discounts being given. Gunnar Sundblad, CEO of Iggesund,104 argued against this suggestion. In an extensive document he presented ten reasons why Kastrup's suggestion was questionable. The most important was the difference between different pulp grades, the conditions on the North American market, the differences between pulp mills, the inability to enforce such an agreement, and the relatively small effect this would have on the market. He ended his argument by asking if the industry really wanted to implement a strategy which was similar to the philosophy of a planned economy, as was being discussed in the societal debate at that time (Sundblad G. SPF 1953).

However negotiations started in Sweden and other countries in the Nordic region. As producers in Finland and Norway supported the idea, an agreement was reached in March 1953 that the producers of

103 Promemoria written in November 1952.
104 Gunnar Sundblad, CEO of Iggesund 1921-1956.
market pulp in Sweden, Norway and Finland should curtail their production volumes by 9% during 1953. 28 of 37 producers of market pulp in Sweden signed the agreement. A consequence of the agreement was that more accurate statistical data to be able to monitor regulations and changes in the market were required. The intention was also to increase and maintain the close mutual contacts between all the Nordic producers.

In May 1953, SCA, the largest producer of market pulp in Sweden, withdrew from all undertakings made by SCF. The reason for this was that even if the proposed curtailment programme had been implemented, the majority rule suggested by SCA had been rejected. The chairman of the board and the CEO of the trade association replied to SCA that in these cases the praxis of the association always had been:

"To take binding decisions on behalf of individual members of the association with regard to economic questions such as production levels and minimum price levels has, for many years, been considered as outside the remit or purpose of this association." (SCF working committee, 1953 October 9).

Implicit in this statement was that a consensus was needed to decide these issues. The action taken by SCA forced the association to start an investigation regarding the formulation of the regulations and the charter of the association. This investigation did not however lead to any major changes, and SCA once again soon took an active part in the associations activities. This was, however not the only organisational issue to concern the trade associations in this period. The Paper Producers Association (SPF) debated in 1948-49 the criteria used for the election of the chairman. The issue was raised when Carl Johan Malmros, who had been elected chairman since 1928, died in 1948. The tradition had been, up to that time, to elect as chairman of the trade association the CEO of a member company. When the new chairman was appointed in 1948, (Erik W Eriksson, CEO of Korsnäs) this tradition was called into question by some members. Ten members consequently cancelled their membership.

105 The nine producers that did not sign the agreement represented 2% of the total production capacity in 1952.
which obliged Mr Eriksson to resign. He was then succeeded by a neutral chairman in 1949 (SPF Annual Report, 1949). Looking back on this incident, E. Landberg former CEO of the paper trade association, felt that it was an early expression of the tensions generated by the emerging structural reorganisation of the industry (Landberg, 1990:135).

As demand stagnated in 1958 and large capacity increases were available the market balance in pulp became disturbed. Generally, the blame was put on the expansion of the North American industry (Sjunnesson, 1958; SPF Annual Report, 1958:4), even though most other pulp and paper producing countries had also been expanding their capacity. As an immediate result of the situation, negotiations about price regulation were again initiated. This showed a drastic change from the optimistic spirit of 1955/56, years in which a survey of future investment plans was commented upon as follows,

".....that this report expresses and reflects the overwhelming desire of the industry to utilise all future investment possibilities within the framework and present limitations of raw material supplies." (SPF Annual Report 1955:54)

A change from 1953 was that discussions were now mainly focused on price levels (SCF, 1958 June 6). As the recession seemed set to continue into 1959, negotiations about price levels were also initiated for that year.

**The organisations involved in negotiations**

The issues discussed above were of vital importance and negotiations were mainly conducted at board level. However there was also a formalised structure for industry wide negotiations. The pulp producers set up a structure of five sections in 1945, the task of these being to establish minimum prices on the domestic market (SCF 1945, sectional protocol). As mentioned earlier the cartels performed the same role for the paper producers.106 A prominent figure, Captain Claes Sandels, resigned in 1949 after nearly forty years within the industry. At the time of his resignation he was the chairman of five of

---

106 In 1945 there were ten cartels, some of these being called "conventions".
the cartels.

As legislation concerning competition changed in 1953 the form of co-operation was reconsidered. The result was that six sections were formed in the paper industry. These sections were to be independent from the trade association, but at the board meeting of the Paper Association (SPF) from 1954, the main operational areas were indicated.

"The board therefore proposes that the previous sectional structure of the association should be re-constituted in order to allow all manufacturers within different quality sections to discuss specific matters of mutual interest such as - the market situation, delivery and supply forecasts, quality levels, distribution, product standardisation etc.etc. Each section should, if this is not presently done, keep monthly statistical records concerning order stocks and deliveries/shipments. In addition to these, more frequent reports should be made regarding changes seen in price levels. It goes without saying that this material will, as usual, be distributed and used with the utmost discretion."

(SPF, 1954)

Similar organisational arrangements existed within the Nordic region. In 1943 the Co-operation Council of the Nordic Forest Industries (Samarbetsrådet för Nordens Skogsindustrier) was founded. This umbrella organisation held its first conference in 1946 at which the Swedish, Norwegian and Finnish representatives met and conferred about trade conditions. This arrangement complemented the Scan-organisations established in the 1930’s, intending to maintain a dialogue on market conditions, prices and export volumes.

It was not only on market issues that co-operation within the industry emerged. In the introduction, the attempts to found a joint research institute were mentioned. On the subject of research, it is worth mentioning that it was not before 1931, that the first Professorship in cellulose technology was established by the government at the Royal Technical Institute (Cellulosa och träkemi samt KTH). The next step was taken in 1942 when the Swedish Forest Product Research Institute (STFI) was founded. The institute was

107 Seven organisations founded in the 1930s. See section 4.1 or Melander (1997) for a more extensive description of the organisations.
financed by the government (50%) and the industry (50%). The aims were twofold; to increase the level of basic research in pulp and paper technologies, and to increase the number of qualified engineers available to the industry. The outbreak of the Second World War was responsible for the postponement of its opening, which was delayed until 1947, the first operational year of the institute.

In 1959 the institute was in a phase of great expansion and a new facility (space increased by about 50%) was inaugurated. In twelve years the personnel increased by 100%, and the general opinion was that further expansion could be expected, since efforts to increase knowledge about wood fibre and production processes was considered as a very good investment in the future. Furthermore the institute was already becoming considered as an important starting point for many careers within the industry.

"We have been able to see many examples of young engineers willing to work for some time at the Institute before commencing their industrial career. During their time here they acquire an interest in basic research and applications which is of the greatest value to themselves and their future industrial activities." (Sundblad G. 1959: 892)

One of the reasons for establishing a joint research institute was the increase in technological and process complexity and another was the need to meet increasing competition on world markets. An example given by Professor B. Steenberg was the increasing use of hardwood in the production of pulp. In Sweden, birch was becoming an important raw material which demanded further research, and on the international arena, production of eucalyptus based pulp was increasing. The latter species used in Southern Europe or South America was seen as a possible future competitor on world markets. According to Steenberg the institute had to study this possibility to improve the future competitive position of the Swedish pulp industry (Steenberg, 1959).

**Supply restrictions**

As demand increased after World War Two factors limiting the growth of the industry became apparent; i.e. the availability of wood and labour. In 1946 fellings were estimated to exceed new growth by
30%. This imbalance was most apparent in the northern part of the country but neither were conditions satisfactory in any other parts of the country (Sveriges Industri, 1948:366; SOU 1948:32; Streyffert, 1950). In his introductory speech at the Annual Forest Week Conference (Skogsveckan, 1946) Nils Berg described the shortage of wood as being one of the industry's most urgent issues.

"There is, today, an acute shortage of wood, and all forecasts point towards a foreseeable future in which forest products will be in great demand." (Berg, 1946:89)

The scarcity of raw material, and difficulty in attracting labour resources resulted in increasing costs for the industry. The shortage also posed questions about the future. In 1948 the price of wood was the highest since 1920/21, a fact that contributed to increased fellings during this year. As fellings increased, the debate concerning the long-term wood supply escalated. The general viewpoint within the industry was expressed in SPF’s Annual Report 1948.

"During the year discussions regarding the long-term availability of wood have been very much in focus. The imbalance between industrial capacity and the insufficient raw material supply in the north (Norrland), together with the increase in supplies available during the last 20 years from Central and Southern Sweden could force an acceleration in the trend for the production industries to move south." (SPF, Annual Report 1948:58)

The above quotation illustrates a discussion that carried on for several years. In 1945 SCF appointed a "capacity committee" with the purpose of documenting the capacity of all the mills belonging to the association. These figures were needed to enable the enforcement of agreed production curtailments (SCF Capacity Committee, 1945), i.e., in an attempt to reduce the demand for wood.

"In view of the excess capacity within the industry, and the shortfall in wood supplies it would appear unavoidable that some regulatory measures must be taken." (Sundblad G. SCF Capacity Committee, 1945).
MoDo refused to be part of this committee as estimations were to be based on the availability of wood separately for each, a system that would favour companies that owned, or in other ways had direct access to, large forests. C. Kempe, CEO of MoDo, was not however unaware of the problem with wood scarcity. In 1946 and 1947 he re-introduced the issue on the Joint Committee of the Swedish Forest Industries (SISU) agenda, arguing that the shortage of wood in the northern regions of the country had become a problem of vital and immediate concern.

"The situation calls for immediate and drastic measures, particularly within the first district (the northern part of Sweden). In this area the earlier usage of voluntary agreements on quota levels within the limitations of the current supply shortfall could possibly be implemented, but I for one must reject this approach as it will not solve the long-term problem." (Kempe C. 1946:1ff).

Kempe argued that it was irrational to reduce the volume of all mills and that there were three other alternatives; 

a) Let market forces and efficiency (competition) decide which producers were going to survive. 

b) Let the government decide about the future of the industry. 

c) Let the industry decide which production units should be shut down. 

His opinion was that the problem of the future shortage of wood should be solved by negotiations within the industry. Such negotiations should aim at identifying the appropriate structure and number of production units.

The problem was most pronounced in the northern parts of Sweden. This could be the reason why the proposal was not accepted within the trade association. In his resignation speech of 1948, Mr Kempe emphasised the regional aspects of the problem. At this time he suggested that regional aspects could be seen as a possibility for the future. In a rather optimistic tone he asked rhetorically; - what could be more natural than to look to the south of Sweden to fulfil the needs of wood in our mills in the North? (Kempe C. 1948)

As a result of the fears for a future shortage of wood, the government decided to appoint a public investigation in 1950. Their remit was based on the belief that there was a wood shortage in the North and an oversupply in the south of Sweden.
"The remit of the inquiry was, together with the investigation of the possibilities available to increase rational utilisation of forest resources, to try to establish if the Swedish output of pulp based products would benefit from the transportation of wood to the production facilities in northern Sweden, where the supply was limited, or by investment in production in Southern Sweden." (SOU 1956:32 page 9).

The appointment of this public investigation was made at about the same time as the fear of a shortage in wood supplies was growing internationally. In 1950-51 the United Nations initiated an investigation aiming to review the possibilities for the increased production of paper. Their report, (European Timber Trends and Prospects, 1953) predicted that a severe shortage of wood would appear about 1960. As a consequence the Organisation for European Economic Co-operation (OEEC) also called for an investigation. Its purpose was to survey the opportunities and obstacles in the European paper industry. In this report, published at the end of 1954, a more optimistic scenario of the future was presented. The view was that the predicted increase in consumption was to be covered by increased production from within the European industry.

In 1956 the results of the Swedish investigation on the future of wood supply were presented (SOU 1956:33). However, prior to the publication of this report two minor parts of the investigation were reported which made the balance of supply and demand a matter for concern as reflected by speeches and public debate articles during the period 1950-1956 (cf Streyffert, 1950b).

What had appeared to be a major problem about 1950 had become a minor problem a few years later (Hagberg, 1954). The commission concluded in 1956 that, according to latest available figures, the balance between the supply and demand for wood was satisfactory in Sweden. However, if the forest industry expanded according to the forecast they had presented to the Department of Trade in 1955, a shortage of wood could arise again, around 1960/61. The volume expansion planned for the period 1955-1960 represented a capacity increase of 30% in the north of Sweden and 50% in the south (SOU 1956:32 page118). Figures representing actual production volumes for 1954 and the estimated production in 1958 and 1960 are shown below. These figures show that the expansion of capacity was even higher
than the optimistic plans drawn up in the middle of the 1950’s.

Table 4.4. Actual and estimated production of pulp 1954, -58 and-60

<table>
<thead>
<tr>
<th></th>
<th>Wood pulp</th>
<th>Chemical pulp</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production 1954</td>
<td>816,000</td>
<td>2,791,000</td>
<td>3,607,000</td>
</tr>
<tr>
<td>Estimated capacity 1958</td>
<td>1,249,000</td>
<td>3,679,000</td>
<td>4,928,000</td>
</tr>
<tr>
<td>Actual production 1958</td>
<td>975,000</td>
<td>3,525,000</td>
<td>4,500,000</td>
</tr>
<tr>
<td>Estimated capacity 1960</td>
<td>1,314,000</td>
<td>3,999,000</td>
<td>5,313,000</td>
</tr>
<tr>
<td>Actual production 1960</td>
<td>1,190,000</td>
<td>4,330,000</td>
<td>5,520,000</td>
</tr>
</tbody>
</table>


However the investigation concluded that these expansion plans were somewhat exaggerated. If the expansion took another five years, the balance between supply and demand would be satisfactory. In that extra five years the increasing possibility to use small wood in the pulp process would influence the total supply situation.109 Referring to the remit of the investigation, the report concluded that the predicted shortage of wood in the north of Sweden in 1950 seemed to have been exaggerated.

The governmental investigation in 1956 was one important contribution to the debate about the supply and demand for wood. A debate in which the general opinion - i.e. that the future supply of wood was limited - changed to a view of much more confidence in the future possibilities for the Swedish forests to supply the needs of an expanding P&P industry. Gunnar Sundblad (1958) expressed this belief about the future possibilities in the following way,

"I would remind you that during the last 50 years - 1907-57 - the annual production of pulp and paper has increased from 800,000 to 5,450,000 tons. How many times during this period have we been told that the ceiling has been reached for our forest resources?....The chemical pulp industry is only 75 years old and there are still great possibilities for continued expansion in the future." (Sundblad G. 1958:245)

108 The difference between estimated capacity and the highest possible production is about 5-10% Therefore the actual production in 1958 and 1960 has been increased by 10% to make the figures comparable.

109 The trade association supported this view when commenting on the investigation (SPF, 1956 October 24).
Mr Severin (member of the Swedish Parliament) addressed the members of the Swedish Association of Pulp and Paper Engineers (SPCI) in 1957, emphasising that a radical change of view had taken place during a period of ten years,

"Instead of asking if our forest resources are sufficient to support our industrial production capacity, we should instead be posing the question: is our production capacity too low when compared to our plentiful forest resources which are continuously being renewed and increased?" (Severin 1957:359)

The reasons given by Severin for this rapid change in forecasts were both intensified forestry and the ability to increase the utilisation of wood fibre in the production process. Finally an unsigned article in the industry's trade magazine discussed conclusions to be drawn from the governmental long range plan of 1956 (Långtidsplanen).

"The summary of the conclusions reached by the long-term Inquiry stressed that no obstacles in the form of raw material or labour availability during the coming 5-10 years could be seen which could prevent a major expansion of the Swedish forest industries." (Svensk Papperstidning 1957:3 page 107).

The future, however, turned out to be more complex than this. The public investigation of 1956 was referred to interested parties for consideration and response. In its reply, the industry seemed to be more pessimistic about the future. Considering the changes that had taken place during the preceding years, the associations found that the availability of wood was lower than had been estimated in the investigation. Several reasons were given, the most important being the expansion of production capacity (Svensk Papperstidning 1957:1). It was obvious that the conclusions were due to the different time scales considered. The optimistic tone of the investigation was based on the long-term perspective.

"It is however surprising that the discussions within the forest industry associations regarding expansion prospects only considered the short

---

110 Not to be confused with the SOU 1956:32 discussed above.
term supply situation and disregarded all accepted forecasts about the increase in forest resources which would occur up to the start of the 1980's." (Severin, 1957:361)

The more pessimistic view of the future availability of wood in the industry was also illustrated by a reluctance to continue to invest in increased capacity (cf Enström, 1958).\footnote{At this time large investments were being made. This statement must therefore be seen as future oriented. That is, after the planned investments there would be no room for further expansion in the future.}

**Ownership categories and productivity in forestry**

Increased productivity in forestry was seen as the most important solution to both the high price of wood, and the shortage of supply. The measures suggested varied from better planning in the usage of species, efficiency in transportation, and more efficient use of wood in the production process. The most controversial conclusion of the public inquiry in 1956 was that the number of small forests owned mainly by farmers\footnote{The appropriate name for this group of owners (mainly farmers) is "private individual forest owners". However the group will be referred to as "private forest owners" from now on.} was an obstacle to efficient forestry.

"The majority of the committee members emphasised that the forests in the ownership of private individuals and small farmers in their turn could be split in two or more small units. These small units did not facilitate the development of an efficient forest industry." (SOU 1956:32 sid153)

The difficulties of implementing an efficient industrial forestry can be exemplified by a speech given by Professor Streyffert in 1958 (Skogen, 1958, see also Lundh, 1957). In this speech he identified three main groups of forest owners in Sweden; the industry, the state, and the private forest owners. He saw private forest owners as being the main problem, since there was a lack of overall policy and a short term planning horizon. The latter was considered a major problem as a long-term view was an absolute necessity to encourage the large
investments needed to increase mechanisation of forestry.

As a result of this opinion the majority of the members of the committee saw the need to change the law from 1906, which stated that the industry was forbidden to acquire forests from private owners (SOU 1956:32 page 153). The majority of private owners (the minority of the public committee) were united in associations founded during the 1920s. The role of the Forest Owners' Associations was to co-ordinate price negotiations in the most advantageous way for the large number of small private forest owners. The strategy was to unite the small owners and thus increase their negotiation power (Edström 1956:557ff).

As indicated above, the issue of the long-term supply of wood was closely connected to the debate about efficient forestry. The demands for changes in legislation were one reason for this. A second were the plans of the Forest Owners' Association to expand their operations. Until the middle of the 1950's the strategy had been to use small saw mills and other wood processing industries to increase knowledge concerning the process involved in giving optimum added value to the raw material. From the public investigation in 1956 the projected oversupply of wood in the south of Sweden suddenly became a realistic scenario. The Forest Owners' Association response to this was to prepare and introduce plans for more extensive industrial operations in the south of Sweden (Edström, 1956:562).

"It must be obvious that the forest owners associations do not only have the position of a discussion partner within the overall industrial debate but that their positive contribution and co-operation is of the most vital

113 The first cooperative organisation that survived for a longer period was formed in Jönköping 1924. The association of cooperative organisations, the starting point for the forest owners plans to expand, was founded in 1938.

114 The private forest owners had a complicated organisational structure. To simplify the reading of this text I use only the name of the industrial company, Södra, and "the Forest Owners' Association" when discussing the Forest Owners' Association in the South of Sweden. When focusing on Forest owners' associations in general, or specific associations in other parts of the country, this will be noted. In the northern parts of Sweden the Forest Owners' Association also founded an industrial company, Ncb.

Obviously the established companies in the P&P industry saw this as an undesirable development. Kempe E.116 (1958:6) argued that investments in new capacity were wrong; and instead, limited investment resources could be used more efficiently in modernising existing mills. He, and many other experts in the industry, foresaw a future in which the private forest owners would supply their surplus wood to the new mills, whereby the established companies would be excluded from 50% of the wood supply in Sweden.117 This was expected to happen at a time in which the survival of the industry in the North was partly seen as dependant on supplies of wood from the southern parts of the country. Representatives of the Forest Owners' Association however denied any plans for major expansion.

"In the present situation it is therefore unrealistic to assume or imagine that the forest owners have any hidden long-term ambitions - i.e. those of establishing their own industry to ensure that any annual growth surplus would be used by processing all their forest products themselves. There is no such ambition, if there was this would be considered as somewhat less than realistic." (Edström, 1956:563)

The debate was intense in 1954-1958 (Hamilton and Pettersson T. 1988:64). Protests from the industry were supported by a trade union campaign (see SIA tidningen 1954-55). A result of this was a bill (the so called “Sköldska motionen”) to Parliament in 1956. In this suggestions about compulsory levels of forestry were proposed. The bill was worded to cast grave doubt about the private forest owners ability and resources to implement the proposed suggestions (Stridsberg and Mattsson, 1980:117) It was rejected by Parliament: and in a later public investigation (SOU 1958:45) only minor differences in forestry methods were found between the different ownership categories. After this, the debate about the role of the private forest owners subsided. In 1957 the Forest Owners' Association was allowed to start the building of a pulp mill in

---

116 Erik Kempe, CEO of MoDo 1949-1959.
117 As approximately 50% of forests were owned by small private forest owners at this time.
Mönsterås. The mill started operating in 1959. However the debate about the private forest owners role in the Swedish P&P industry still reappeared occasionally during the following decades.

The mechanisation of forestry

The growing demand for paper and pulp caused prices of wood to increase, but this increase was also due to the shortage of labour. Gunnar Sundblad, CEO of Iggesund illustrated the problem when he, in the joint employer and employee council (företagsnämnden) proposed a policy to counteract the shortage of labour in the industry.118

"One of the major difficulties encountered in the provision of the raw material, the wood, is the lack of a sufficient labour force in the forests. We are doing everything in our power to counteract this "forest area depopulation" by building new roads and housing projects, drawing power lines, installing water and sewerage systems and ensuring better communications and public transport services." (Sundblad G. 1948:3-4)

The idea of improving working conditions was not the only way to deal with the shortage of labour in the forests. Mechanisation could both lower the number of workers needed and reduce costs. The chain saw and the increasing use of tractors and trucks to improve transportation to the mill substantially increased productivity (Vestergren, 1967). The focus on rationalisation in forestry was reflected in a comment made at the annual forest week conference in 1953. "It is clear that this rationalisation process is being observed with the keenest interest by the population of the forest areas." (Skogen, 1953:66). In several speeches it was argued that the driving force behind mechanisation in forestry was the extreme shortage of labour (Skogen, 1953:67; Enström, 1956c). Håkan Abenius, CEO of STORA, reported in 1954 that the productivity increases in forestry had been substantial, and mentioned as an example that in the last couple of years 120 kilometers of new roads had been laid in forests owned by

118 Nilsson (1979) further discusses the effects of labour shortage on the development of the P&P industry in the northern parts of the country.
STORA (Abenius, 1954). In 1956 preliminary results of an investigation about the future of trucks in forestry were published (Biltrans-portutredningen, 1955). The conclusion was that the proportion of wood transported by trucks seemed to be increasing. In 1954, 1750 kilometres of new forest roads were built in Sweden. This expansion took place instead of floating the wood on rivers. In 1956 the general view seemed to be that trucks and tractors were replacing the floating on small rivers, but the large rivers were still competitive.

"The situation regarding the usage of the main rivers and their role in timber flotation is completely different. They will, as far as can be seen, retain their economic viability within the foreseeable future." (Ternstedt, 1956:313)

**Future competition**

Once governmental attempts to use the P&P industry as an instrument of economic policy had stopped and the scarcity of coal, oil and hydro-electric power had disappeared, the wood shortage emerged as the most important obstacle to the expansion of the industry. The shortage of wood combined with the subsequent Korea crisis, made the situation turbulent and unpredictable. The end of the period was, however, characterised by a more favourable climate. International trade grew and market demand was high. In a survey of future trends and prospects it was stated that,

"The wood pulp industry has since its advent a few decades ago grown into one of the world’s most important industries. It is still one of the most expansive industries of the world. This prolonged expansion can be ascribed to the ever growing demand for paper and board and, more recently, for textiles, etc." (Streyffert, 1954:709ff)

In 1954 a survey suggested that the growth of pulp and paper consumption had generally been underestimated in forecasts made up to that date. The example given was that according to earlier forecasts newsprint consumption in Sweden had been predicted to reach 134,000 tons in 1965, a level that was actually reached in 1954 (Svensk Papperstidning, 1954:21). At that time there were no signs that this growth rate was slowing.
As estimations of the future wood supply were re-evaluated and since forecasts indicated growing demand, optimistic expansion plans were frequently published. Changes on the international scene were considered a possible obstacle to these plans (cf. Pihlgren, 1956). The change was most obvious for market pulp, since during the period 1937-1957 the volume of pulp produced in the world had doubled, whereas international trade had only grown by 20%. The background to this was the growth of the P&P industry in the US (Streyffert, 1950a; Sjunnesson, 1958). During the Second World War and the years immediately following the war, American mills more than quadrupled their pulp-producing capacity, thus reducing import requirements substantially (Sydow, 1955). Consequently Swedish pulp export had to find new markets. Sales to South America and Asia increased but eventually the industry became increasingly dependent on West European markets. Many of the top executives in the industry were concerned about the rapidly growing capacity of the North American P&P industry. The industry was becoming so powerful that US companies could easily affect the supply/demand balance for pulp and paper in Europe.

"In this regard the production of pulp and paper are threatened by competition, principally from North America. The US has up to now only been regarded as an export market for pulp and paper. A radical change has taken place in recent years with the establishment of pulp and paper production facilities in the southern states of the USA. This has allowed American exports to Europe to become of not insignificant volumes. Projections for this year (1954) show that the USA will export in the region of 1 Million tons of paper, board and pulp." (Abenius, 1954:3).

In 1954 five large pulp mills began production in the US, all of them designed to produce market pulp. In that year, export of pulp from the US to Europe increased by almost 200% (Linde, 1955). This growth was also an important reason why producers in Sweden were increasingly anxious to continue the rationalisation of their forest operations. The cost of wood in the new production areas (mainly in the southern parts of the US) was low.

---

119 Corresponding to a total export of 43,000 tons.
The question of wood costs also initiated a further interest in the possibilities of producing pulp in new parts of the world. In 1955 the visionary founder of Tetra Pak, Ruben Rausing, issued a warning about the increasing number of new producers in South America and the South of Europe (Rausing R. 1955), which may be seen as the start of a growing concern about new competitors (cf Sjunnessons, 1958; Lyberg, 1959).

New technologies allowed an increasing use of hardwood, straw and grass in the production of pulp, which opened up the international pulp market for new countries. Danielsson (1958) and Enström (1956) commented on the possibility that new countries could themselves start a production of pulp. Both of them concluded however, that the quantities of pulp produced using these raw materials could never become of any major influence on the world market.

"Unbleached semi-chemical pulp is produced in Sweden but should probably be more suitable in areas with large forests of broad leaf trees. Straw, different species of grass, manilla, bamboo and straw from flax are now used as raw material where there are no pine forests. There seem to be indications of an increasing usage, although the produced quantities should not be of any significant importance to the world market." (Danielsson 1958:173)

Sjunnesson also stressed the superior quality of the Swedish products. Lyberg however was more pessimistic about the future. He saw the growth of producers in the Soviet Union and South America as severe threats to the Swedish pulp industry within the next few years. He also foresaw that demand in Europe would exceed supplies available from the Nordic countries and that the Swedish producers market share in this region would therefore decrease in the future.

---

120 Tetra Pak is today one of the worlds largest producers of packaging systems for liquid consumer products.
121 Bengt Lyberg, CEO of MoDo 1959-1971.
122 SA (1954:6) reported on a conference held to discuss the future of birch in the Swedish forests. At this time most of the speakers saw the need for birch in the future. However the industrial use was not the major reason given. Instead, environmental issues were dominating, i.e. the use of birch in the production of pulp was not fully developed at this time.
However the development in the US and Finland also became a source of inspiration for the Swedish industry to invest. Three trends dominated development in Sweden; large scale production, integration of pulp and paper production, and the development of new products such as semi-chemical pulp and various board grades. Regarding size, a strong tendency to invest in large units was noticeable in the 1950’s - a development reflecting investments made abroad. It was argued that compared to its major competitors, the Swedish pulp mills were too small (cf Gårdlund, 1956). Enström (1956b) comparing the average pulp mill in Finland and the size of a new mill in Sweden, observed that the average Finnish mill was designed for a capacity of 95,000 tons whereas in Sweden the new ones were mostly designed to produce only 70,000 tons. His conclusion was that the mill size must be increased, i.e. a structural rationalisation had to take place. The idea of increasing the size of mills was economically attractive but presented major difficulties, since, if the Swedish pulp industry followed the example set abroad, the structural changes in the north of Sweden would be massive.

The production of semi-chemical pulp was one factor contributing to the integration of pulp and paper production in North America, since this kind of pulp had to be produced in an integrated operation (Anstrin, 1956). In Sweden the first mill to produce semi-chemical pulp was started 1956. The mill had an initial capacity of 8,500 tons a year. At that time, production of semi-chemical pulp had been taking place since the 1920’s in North America where production had reached about 1.3 million tons in 1954/55. In continental Europe there were 12 mills producing semi-chemical pulp in 1956 (Anstrin, 1956).

A second, probably more important reason contributing to the interest in integrated production, was that integration reduced costs. This was a fact for most products, with the exception of writing paper, a grade which suffered from lower technical quality when produced in integrated mills.

123 This is illustrated by an article in SIA (1954:6) the title is "Structural rationalisation 1920-1950, painful but necessary development". I. e. structural rationalisation was not a new invention after the Second World War. An intensified rationalisation can, however, be identified.
124 The first mill was followed by four similar mills in the following years (until 1969).
Semi-chemical pulp was not the only new product coming from the US. H. Raising concluded in March 1952, that a revolution in the distribution of consumer articles was taking place in North America, and predicted that these changes would sooner or later come to Europe. He also stated that this was an interesting perspective indicating a future growth area for the Swedish P&P industry. This prospect however also contained a threat, as pointed out by Ruben Raising in 1955. As well as the possibility of new countries producing pulp, the growth of plastics as a substitute for paper represented another threat to the P&P industry.

"A new technology is in the process of creation, in which plastics and papers are combined - the end product showing the best properties of both materials. Tetra Pak is a good example of this." (Raising R. 1955:4)

The above illustrations seem to indicate that the integration of pulp and paper production in large scale mills was considered the only way forward in this period. This is, however, not entirely correct. A number of other options were also seriously discussed, at least during the first part of the period (cf Löwegren, 1945; Waldenström, 1946; Kempe C. 1948; Wegelius, 1949; Kempe E. 1951). Torsten Hérnod for instance argued in 1942 that pulp producers had three options for the future. The first was to focus on forward integration of the production of paper. The second was to focus on the chemical industry. The third was to promote the use of pulp as a raw material in the production of textiles and tyres. He further argued that the usage of most paper products had reached the stage of decline and protectionist trends on the international arena were acting against Swedish producers. His conclusion was that the chemical industry and textiles and tyres were the most promising future growth areas (Hérnod, 1942:132). A similar argument was given by Tore Browaldh (1958), who described the situation as a continuous development toward more value added products i.e. from pulp to paper products. He also suggested that a new development stage would be the chemical use of the fibre.

"Yet another step forward in the same continuing process of development are the prospects opened by the manufacture of chemical products based on wood, which, is however still in its infancy. Seen purely from the technical viewpoint these are of the greatest interest."
(Browaldh, 1958:418)

In a book covering MoDo’s development, published in 1946, the wide range of products based on the tree is illustrated. In this survey the focus on chemical products is obvious.

**Figure 4.3. The chemical prospect for the future**
(See pages 132 - 133)
(Source: Sweden’s Forest Bounty, MoDo, 1946, page 80-81)

However even if the perspectives illustrated above were interesting, the development in the major part of the industry followed the trends set in the US. The trade union magazine reported, for instance, SCA’s investment programme in 1955. Concluding that SCA was becoming specialised in integrated production of pulp into bulk grades of paper such as newsprint and board, the article ends with the following comment.

"The Swedish chemical pulp industry is renowned for its product quality and production efficiency, but one must perhaps ask if this is enough in the long-term perspective. Is it really wise to rely on a reputation - a secure position - or is a more imaginative commitment to the future through long-term research projects called for?" (Antoine H. SIA, 1955: 8, page 15)

**4.3.3 1945-1958 - The issues**

In this section the most important issues of the period 1945-1958 are summarised. This summary will be followed by similar summaries following each of the four time periods. Together they will constitute a basis for the analysis of the various issues in chapter five.
**Governmental surcharges**

During the first part of the post war period the effects of the war economy were still being felt. It was a period of restrictions and regulations. Statements from industrialists indicated frustration with the administrative system that prevailed after the war. The regulations affected P&P industry activities both domestically and internationally. The surcharge which was intended to dampen the effects of business cycles (Konjunkturutjämningsavgifter) is an example of such regulations. The bureaucracy was very time consuming since the trade associations had to both negotiate and administer these schemes. Since the charges originated in an attempt to implement an anti-cyclical economic policy in Sweden they also affected the investment pattern of the industry.

**Investment regulations**

After the surcharges were abandoned in 1953 a change can be seen in the development. In the following years (1953-1958) the focus was more towards investment regulations. As the industry was profitable and forecasts about increasing demand were optimistic, there was a growing interest in new investment. Investment regulations were used in the same way as the cyclical surcharges (konjunkturutjämningsavgifterna), i.e. in order to attempt to reduce the effects of business cycles. The abolishment of these investment regulations in 1957/58 allowed unlimited possibilities for investment in the industry. A wave of investments consequently occurred during the following years.

The interconnection and relationships between governmental policies, increasing governmental bureaucracy and increasing levels of costs in the industry were the subject of concern in many speeches. As a result of governmental action the industry was forced to increase the responsibilities given to the trade associations. Increasing costs were also a major problem. The increase in wage levels affected, for instance, the price of wood which represented an important cost factor to the industry.

**How to achieve a stable market balance**

Attempts to reduce the effects of business cycles had often been made by the industry since the beginning of the century. Therefore it came
as no surprise that the attempts to dampen the effects of business cycles appeared again during the recession following the Korean crisis of 1953. In the 1950’s the changes occurring on the international scene were of vital importance for the implementation of these forms of agreement. The increase in US pulp and paper production capacity changed the traditional pattern.

This development revealed an urgent need, not only to find ways to co-operate and reach agreement with US producers on subjects such as capacity utilisation, but also how to implement and control such understandings. Changing international conditions became evident during the recession of 1953. Attempts to balance supply and demand through international agreements on capacity utilisation turned out to be more difficult than ever to implement. The attempt to regulate the demand and supply balance in 1953 was followed by a similar attempt during the recession in 1958. This time, however, the North American industry was seen as the cause of the demand/supply problems.
The international trend towards trade liberalisation

In the 1950’s the international scene changed as multinational negotiations about trade liberalisation were initiated. The formation of the EEC and EFTA was regarded with mixed feelings by industry experts in Sweden. In 1959/60 the formation of the two trade blocks in Europe initially created a temporary stabilisation. The abolishment of trade barriers within EFTA, and ongoing negotiations with the EEC made the view of the future rather optimistic. The future determination of methods to regulate the supply/demand balance was still however an issue of vital importance to the industry, as the abolition of trade barriers could lead to increased competitiveness for the Swedish pulp and paper industry.

Organisational forms of co-operation

Closely related to the attempt to ensure a market balance was the debate concerning the structure of domestic co-operation. Co-operation on technical issues, market issues, statistics and pricing was seen as necessary in order to gain a competitive advantage against competitors from other nations.

The issue focused on how to organise and implement co-operation and structural rationalisation. Regarding subjects such as research, trade rules and statistics, the consensus on co-operation was almost unanimous. When it came to restricting output and price levels the degree of consensus was lower. Negotiations within the industry took place on several occasions. Thus, the debate was mainly concerned with how an agreement about the degree of co-operation could be reached; and the form and organisation of this co-operation.

The predicted shortage of wood in the north and south of Sweden

The feared shortage of wood that became apparent during the 1930’s, followed by the extensive harvesting of forests during the Second World War increased the fears of a future shortage. This was perceived as a problem facing, in particular, the north of Sweden but
research carried out in the 1950’s indicated that the situation would gradually improve. Thus the shortage of wood became seen as more of a distant problem which would only appear towards the end of the decade. Both the debate and research indicated a growing belief in the possibility of a large volume expansion in the industry - at least in the south of Sweden. The general concern of a shortage of wood in the beginning of the period was then changed into two related issues; a) how to ensure the long-term supply of wood in the north of Sweden and b) how to attain the best possible utilisation of the forests in the south of Sweden.

The entrance of the Forest Owners' Association

The predicted shortage of wood, together with increased cost levels were two issues demanding a radical improvement in the efficient usage of forest resources. Technically advanced innovations were costly to implement in the short term (as was the development of infrastructure, i.e., road construction etc.) but provided an excellent return on investment when performed on a sufficiently large scale. From the industry’s point of view the conclusions to be drawn were obvious. The predicted shortage of wood combined with increasing cost levels made improved productivity in forestry a top priority. Against this background it is understandable that the announcement of the Forest Owners’ Association that they intended to establish themselves in the P&P industry was met with horror by the industry establishment. The new mills planned by the associations would compete for the available wood and, in the long-term perspective, the necessary restructuring of forest ownership would be delayed. The effect of the forest owners attempts to enter the P&P industry could only be one - increasing prices of pulp wood.

Increasing international competition

The fear of wood shortage restricted possibilities of any volume expansion of the industry in the northern parts of the country. One alternative was to produce products of higher added value, i.e., to abandon the concentration on pulp and to instigate a strategy of forward integration based upon supply of finished or half finished products.
As pointed out in many texts (see for instance Eklund, 1993) a technical gap existed after the Second World War between the industries in Western Europe which lay in ruins, whereas the North American industry had been able to expand and, had, in many areas, developed new technologies. Swedish industry, not all that severely affected by the war, was somewhere between these two extremes. As a result of production capacity increases in countries rebuilding their industries after the war, and North American industry enjoying a technical lead, international competition gradually increased. The need for the restructuring of the Swedish industry became obvious and even if the 1950’s were later seen as "the golden fifties" it was also a decade in which vital decisions had to be taken.

**New substitutes and new actors**

Finally, two major factors emerged during this period.

a) The development in the US of new products based on plastics. Some saw this as a future trend and gave warnings about what was about to happen. However, in general, there were few experts at that time who had the foresight to recognise this development.

b) New pulp producing countries emerged as the result of improved pulp making technology; and hardwood fibre gradually became an optional raw material. Thus, forest resources outside Europe and North America became of interest. However this threat was still seen as rather distant. The majority of experts argued that the new producers were of marginal importance as far as the global supply of pulp was concerned.

In an attempt to illustrate the industry agenda for the period 1945-1958 an "issue chart" has been made on which the most prominent issues of the period are recorded.

**Figure 4.4. The issue chart 1945-1958**
4.4 1959-1968 An era of paradox

4.4.1 The Swedish social and economic development 1959-1968

The economic recession of 1958 and 1959 changed into an increasing demand situation in 1960 and 1961. Based on their successful experience from the 1950’s the expected recession of 1962 was the cause of governmental pre-emptive actions to stimulate the economy. However, in 1962-1964 the expansion unexpectedly continued. In 1964 GDP increased by 6.7%. The peak was reached in 1965, a year in which unemployment in Sweden was as low as 0.75%. 1966 was characterised by a slowdown in the economy which did not develop into a real recession. On the contrary, 1968 and 1969 were years showing high growth in demand levels.

The Swedish economy, as well as the political situation during the 1960’s, can therefore be described with words such as; stability, growth and predictability. The annual growth of GDP was 5.2% in 1961-1965, which is quite high compared to 3.9% during 1966-1970. In conclusion: "The 1960’s showed an extreme period of growth after the Second World War." (Sandelin, 1984:24)

The debate about pensions in 1959-1960 is proof that ideological differences still existed. The Social Democrats also formulated a new programme for the future development of social and political life in
Sweden, which can be seen as their response to the criticism which accused them of reneging on their socialist ideals and principles during the 1950’s.

"The democratically elected government (the Social Democrats) must therefore widen its aims and take a greater responsibility. Society must commit itself to increased infrastructure expansion, which includes education and research, transport and communications, power supply, health care, housing and planning” (Palme, 1960)

Included in these new ambitions was the old idea of continuing rationalisation of the industry. The emphasis was now focused on productivity. Society’s resources were to be directed towards supporting industries and companies that provided the best possible productivity. The government considered that it had an important role to play in the organisation of this process.

This period of economic growth was felt to be a suitable time to implement ambitious plans. Lewin (1967) argues that the goals formulated by the Social Democrats in the period 1956-1964 were very similar to the ones formulated at the end of the Second World War. The aims were to reduce bottle-necks in the economy, to counteract forces which restrained the expansion of the economy, and to identify and support all initiatives which could result in economic growth (Lewin, 1967:437). The ultimate intention was to eliminate the inherent problems of the market economy, i.e., to make the market economy work in a way that was compatible with social democratic ideals about equality.

The climate of co-operation in politics survived until the middle of the 1960’s and except for the political battle about the pension system, there were few ideological conflicts. The large number of votes for the Communist Party in the general election of 1966 coinciding with the opposition parties' formulation of a joint political programme, was the first sign of a threat to the status quo (Hadenius, 1996). As a response to the popularity of the Communist Party, the Social Democrats re-introduced many of the ideas first seen in the 1940’s.

---

126 Molin (1965) argues that the pension debate was intense mainly due to strategic reasons, and not because of any ideological differences.
when drawing up their manifesto before the 1968 general election. The party gained a majority in that election which made it possible for the new Prime Minister, Olof Palme, to implement their proposals. Active participation from all levels of society in the restructuring of the industry was one of the pillars of this programme. The foundation of a Department of Industry in 1969 and the introduction of a system intended to facilitate its restructure (Investeringsbanken) in 1967 were two of the most important steps taken towards this end (Myhrman, 1994:175). The formation of a board of inquiry consisting of representatives of industry, the labour unions and state authorities to study the needs of the P&P industry is one example of the more specific measures taken.

The specific concern about the P&P industry shown by political leaders can be traced back to the time of the structural rationalisation of the industry. A rationalisation which led to many painful closures especially in small "one-mill-towns". The liberalisation of international trade together with a high export dependency also made the industry highly sensitive to international economic fluctuations (Myhrman and Söderström, 1982:90).

4.4.2 The pulp and paper industry 1959-1968

The problem with step-wise investments

The end of the 1950’s was characterised by the introduction of large machines. The two new newsprint machines in Ortviken mentioned previously were followed by new machines installed by STORA in 1955 and Holmen 1958/59. Together these new newsprint machines almost doubled the newsprint capacity in Sweden. These investments were paralleled by similar large investments in North America and Finland. SPF commented on the situation in 1959 as follows:

"The general consensus of opinion is that available capacity, together with known expansion projects, will be more than enough to satisfy any foreseeable increase in the world-wide demand for newsprint." (SPF, Annual Report 1959:1)

The large increase in newsprint capacity was followed by a similar increase in the production capacity of kraftpaper and board a few years
later. In the period 1961 to 1963, four new machines commenced production within this product area. These increases in production capacity in two well defined product areas caused difficulties when the increased volumes suddenly available were introduced on the market. The result was low capacity utilisation and low prices. Attempts were made to stop this price erosion by agreements restricting the volume produced. In both product grades agreements were concluded on a Nordic basis (SPF, 1959 and 1962; Mossberg, 1962b).

The problem of the balance of supply/demand on the pulp market recurred frequently during the entire period. The background was that the demand for pulp in West Europe suddenly increased in 1960. This increase could not be met by the Nordic producers. Consequently, North American exports to Europe doubled, from half a million tons to a million tons in a short period. In 1961 demand for pulp decreased, at the same time as new capacity became available from the Nordic countries. To maintain their market share North American producers competed with low prices which caused stocks to increase and overall price levels to fall (Sjunnesson, 1961). In the autumn of 1961 Nordic producers agreed to curtail production and restrict sales volumes. During the period December 1961 to December 1962 these Nordic restrictions resulted in a total production of only 2,750,000 tons in Sweden, 1,700,000 tons in Finland and 425,000 tons in Norway.127 There was great uncertainty about the reaction from the North American producers to this agreement.

"A basic condition for this would be that North American exports would decrease drastically during 1962, and that the Nordic paper producers would pursue a price and production volume policy in keeping with the pulp manufacturers policy of market development through agreed controls." (SCF, 1961)

This was the starting point for a long period of production and price restrictions agreed by the Nordic producers in an attempt to stabilise the pulp market. The 1961/1962 agreement was followed by agreements in 62/63, 63/64 and 1965. These had a certain effect and made small increases in production volume quotas possible during the

127 Only a few producers opposed the decision. They were however so small that their production volumes were of minor importance.
period. In a speech in 1964 Gunnar Sundblad discussed the situation of the pulp industry and he expressed the opinion that in the short term perspective the production cut-backs had been successful.

"Because of the very good co-operation and the solidarity shown by the manufacturers, an extensive output limitation policy has been able to be implemented within the Scandinavian pulp industry" (Sundblad G. 1964:122).

In 1965 the slump in the pulp market seemed to be over, since pulp prices became stabilised (SCF Annual Report, 1966). In the same annual report it was also suggested that problems in attaining a balanced market, combined with increasing cost levels were contributing to the structural rationalisation taking place in the pulp industry. It was reported that in the period 1964 to the end of 1966, 22 pulp production lines were shut down.\(^{128}\) This reduced the total production capacity by 900,000 tons.

The North American producers were the main problem during the entire period. In August 1961 a committee was formed to discuss production restrictions among the Nordic producers, and negotiation strategies to be used when negotiating with the North American industry. The Finnish representatives argued that the Nordic producers should start by negotiating with the North American producers. The Swedish and Norwegian position was that the Nordic producers should first come to an agreement and would then be in a stronger negotiation position. It was agreed that the latter procedure should be used (SCF, 1961). The numerous negotiations with the North American competitors were not very successful. To take an example, the stabilised prices achieved in 1965 were not expected to last for long since North American industry was planning further expansions (Sjunnesson, SCF, 1965 May 10). Consequently the market balance for pulp was difficult to maintain during the subsequent years. In 1967 negotiations with North American producers resulted in a production curtailment during two weeks in both North America and the Nordic

\(^{128}\) According to Svensk Skogsindustri i omvandling (1971) 13 pulp producing units were closed down in this period. The difference in number is due to definitions. In some cases a closure could lead to the rebuilding and introduction of a new product grade at the same pulp mill.
countries. It may thus be suggested that the heavy investments in the beginning of the period influenced industrial policy during the rest of the 1960s. The result of the large investments made in Europe and North America was a considerable volume expansion, but falling market prices. The volume expansion was accompanied by an ongoing rationalisation. The problem was, however, that general cost levels in Sweden were also gradually increasing. As competition became more fierce, profit margins were being reduced (cf Pihlgren, 1964; Sydow, 1964; Rynell, 1966). The prospect of margins falling to levels at which self financing future investments would not be possible was gradually growing.

"It is my opinion that we are running the risk of what is becoming to be known in the North American paper industry as "prosperity without profit" - i.e. full usage of investments, but with greatly decreasing margins becoming apparent throughout variations in business cycles, which in the long-term can only result in non-profit making operations. " (Sydow, 1965:135)

Increasing wood costs represented a major part of the problem. The price of wood on the open market did not increase very much but it was argued that the increasing costs involved in felling and transportation were not covered by increases in the prices of the final product (Svensk Skogsindustri i Omvandling, 1971:38; Streyffert, 1968). Moreover the cost of wood was lower in North America than in the Nordic countries. Since North American producers were the most aggressive competitors in West European markets this differential in wood prices was of vital importance (Bergek, 1968:16ff).

129 To illustrate the importance of the issue the following example can be used. A meeting with the CEOs of 22 Swedish pulp producers was held in August 1967. The notes from the meeting consist of seventeen pages. The conclusions alone take four pages. At this meeting the general idea of restrictions was accepted without debate. However which pulp grades should be involved, the distribution of closure time and the effects on wood supply were issues that required long discussions.
The formation of free trade areas

The EEC was formed in 1956 and in 1958, when the hopes of a trade agreement covering the whole of Western Europe failed to materialise, a second free trade area was founded. The paper producers' standpoint was that the formation of EFTA was a step forward but their ultimate goal must be a merger between EFTA and EEC (SPF Annual Report, 1959). Until such a merger could take place, the trade association considered it a vital task for them to counteract the actions of lobbyists from the West European P&P industries. In connection with the founding of EFTA, the paper industry in Great Britain repeatedly took protectionist measures, directed against the Nordic P&P industries.

"From our point of view, we are very pleased to see that pulp and paper will be considered as any other raw material. All the previous efforts of other European paper producers (principally the U.K.) to exclude, or give some level of protection from, Swedish producers within the terms of the agreement, have not been successfully discussed." (SPF Annual Report, 1959:25)

As the EFTA agreement was signed, initiatives for more peaceful negotiations between the paper industries were started. In March 1960 representatives from the British and Nordic paper industries met in Copenhagen. In these discussions the Nordic strategy was formulated as "live and let live". This policy was continued during negotiations conducted in 1960 and 1962 (SPF, 1960; SPF, 1962).

"Prior to negotiations with the British delegation, the Scandinavians had discussed and come to agreement concerning their negotiating basis and standpoint. The unanimous conclusion was that they would pursue a strategy of "live and let live" i.e. we acknowledged the right of the British producers to maintain and increase their position on their home market, but at the same time could allow and share in the increasing demand for different paper qualities upon which our export has mainly been based in the past." (SPF, 1960)

A short review of the figures presented in the minutes from these meetings shows that the total Nordic export to the EEC area in 1958 represented about ten per cent of the total consumption of 8.2 million
tons of paper. At the same time consumption in Great Britain was 4.4 million tons of paper. In the following table the impact of the Nordic industry on the West European market is illustrated.

Table 5.1. The export from the Nordic countries, and total consumption in EEC and in Great Britain, 1958.

<table>
<thead>
<tr>
<th>Qualities</th>
<th>Export from the Nordic countries to EEC</th>
<th>Consumption in EEC</th>
<th>Consumption in Great Britain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newsprint</td>
<td>267,000</td>
<td>1,456,000</td>
<td>1,060,000</td>
</tr>
<tr>
<td>Printing and Writing</td>
<td>85,000</td>
<td>1,733,000</td>
<td>--</td>
</tr>
<tr>
<td>Kraft paper</td>
<td>341,000</td>
<td>928,000</td>
<td>572,000</td>
</tr>
<tr>
<td>Other qualities</td>
<td>114,000</td>
<td>3,956,000</td>
<td>--</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>822,000</strong></td>
<td><strong>8,222,000</strong></td>
<td><strong>4,430,000</strong></td>
</tr>
</tbody>
</table>

(Source: SCPF, statistics and SPF, 1960)

The meeting was held in a positive atmosphere. The parties agreed on the "live and let live" principle. It was also decided to initiate regular meetings. An important issue at these meeting was the announcement of price changes.

The situation changed drastically in 1961 when Denmark and Great Britain applied for membership of the EEC. If those two countries entered, 69% of the entire export of paper from Sweden would be sold in the EEC countries. The task of the trade association was obvious.

"The vital and crucial aim of the paper producing industry must therefore be, during the next year, together with governmental authorities and in any other way to enable the resolution of possible points of conflict between Sweden and the EEC which could arise during the negotiations to be held in the Spring of 1962." (SPF, Annual Report 1961)

New applications for membership in the EEC

The applications for membership in the EEC from Denmark and Great Britain in 1961 started a new debate about the future trade relations with Europe. In the following years, while Sweden was negotiating its future relationship with the EEC, the debate was intense (cf Sydow,
1961). Åke Pihlgren stressed the vital importance of the issue.

"Our exclusion from the present common market - and its extension with Norway, Denmark and the U.K. - would place our Swedish paper industry in an extremely serious position. The external customs barriers with which the member states would undoubtedly protect their domestic producers would be such that they would surely limit any possibility of profitable export." (Pihlgren, 1962:3)

In 1963 the resistance from the pulp and paper industries of the EEC countries was an important reason for the breakdown in negotiations between Sweden and the EEC (cf Abenius, 1963). However, as Great Britain’s and Denmark’s applications to join the EEC were rejected in 1963 the immediate problems disappeared. The situation stabilised, and the two trade blocks, EEC and EFTA, focused their attention on internal deregulation for a couple of years.

One particular issue that was subject to much discussion during these years was the "scissors policy". The EEC paper industry accused Swedish industry of increasing the output of pulp mills at the same time as reducing paper prices, thus leaving very little margin for their pulp customers when making their own paper. This accusation was by now well known and the "live and let live" policy was used as a counter-argument (SPF, Annual Report, 1966:21).

In 1967, renewed applications for membership of the EEC were made by Great Britain, Denmark and Norway. These applications were not considered by the EEC during this period. Simultaneously the EEC countries completely abolished all trade barriers within the EEC area. These new applications forced the Swedish government to renew negotiations about Swedish relations with the EEC.

The concept of centralised marketing

As an effect of the intensive negotiations during this period, the advantages of a centralised industry wide organisation, as that in Finland, became obvious. Ewert Landberg (SPF, 1962) presented a

130 That is; a sector specialisation reducing the direct competition between the Scandinavians and the West European industries.
memorandum in which he described his experience of the differences between Sweden and Finland in this respect.

"But, in comparison with the situation of the industry in Finland, this lack of co-ordination of Swedish producers has given Finland an advantage which they of course use fully. I have never changed my opinion that the creation of a mutual sales structure would give the Swedish paper industry a strength which it does not today possess. Of course, this is only a vision of the possible future. But there may be other forms of co-operation, which without relinquishing complete control to a central export sales authority, can considerably unite and co-ordinate Swedish export aims." (Landberg, SPF, 1962)

In Finland joint industrial sales organisations had been in operation for many years. These sales organisations co-ordinated the sales of practically all industrial output, which made it possible for small companies to find and supply customers on overseas markets (Petersson C. 1996:205ff). At the same time this gave a powerful basis for negotiation power in international trade discussions.¹³¹

The reason why a similar joint sales structure was considered in Sweden was not primarily the competition with Finland. What was more important was the co-ordination of the Swedish negotiating position regarding the West European industries and the increasing interest from the EEC in competition legislation (Landberg, 1990). Landberg saw the need for co-ordinated action to attain successful agreements and to avoid further accusations of restricting competition. This could best be achieved by a centralised and powerful trade association. At a meeting at the end of 1962 arguments such as increasing flexibility, a more stable price policy, price control, cost reduction, specialisation and more easily co-ordinated negotiation policies were used to justify a more centralised and thus more powerful trade association (Landberg, 1990:84). Following further investigations, a meeting to decide the form of future organisation was announced in September 1963. During this period Ewert Landberg continued to argue for a more centralised organisation.

¹³¹ The central sales organisations were formally separated from the trade association, however informal contacts were regular.
"Individual companies, even the Scan associations actions could have serious consequences for the whole industry. A national policy covering the whole industry should therefore be formulated by the board and the association. There is, within our organisation, a considerable and valuable fund of knowledge and contacts. The association is still highly regarded both at home and abroad and the goodwill reflected in this is extremely important. We are the only official spokesmen for the industry.” (Landberg, SPF 1963 June 17)

The result of the meeting in September 1963 was that the proposal to introduce more centralised selling was rejected. Ewert Landberg saw two major reasons for this decision. In times of increasing demand the paper companies were not interested in extending any co-operation. Another, and perhaps more important reason, was that the agents and sales personnel of the companies would be affected since they represented professional categories that were threatened by this proposal (Landberg, 1990:86).

The background to this was the structure of the sales organisations. Traditionally, either agents or large "trading houses" were used as intermediaries. It can be argued that this method of marketing resulted in far-reaching consequences for the industry's development, as the result was a job specialisation within the industry.

"Stable demand, satisfactory price levels (during the 1950's) and the lack of direct market contact encouraged company managements to increase their production of pulp and paper. As a consequence, production factors such as raw material supply, capital investment and labour adaptable production processes were of primary concern. The function of sales and marketing became - expressed simply - only to dispose of what the mill could best produce.” (Svensk Skogsindustri i Omvandling, 1971:388)

As a consequence, the direct contact and knowledge of the market within the industry was poor, and marketing activities were not emphasised. In the 1960’s this situation was slowly changing, and the awareness of end-user and market demands became gradually upgraded in the pulp and paper companies. Six major social changes led to this gradual market orientation. The importance of international trade increased, competition increased, and the advantage given by the
geographical position of the Nordic producers diminished. Furthermore, the range of products increased, technical changes in production and distribution were made, and finally, a new acceptance of marketing in society developed (Svensk Skogsindustri i Omvandling, 1971). Consequently, as this knowledge increased, the P&P companies gradually took over the role of their intermediaries and because of this increasing trend there was no longer an obvious need of a strong, co-ordinating trade association.

**Public concern and the pulp and paper industry**

A result of the international trade negotiations held during the 1960’s was that the role of the trade associations became more apparent in the public debate. In the 1940’s and 1950’s the trade associations' main concerns were the negotiations with governmental authorities or industry associations in Europe and North America. During the 1960’s their role became more encompassing. One of the first signs of this was the decision in 1961 to employ an individual responsible for public relations (Pressombudsman). His task was basically to inform the public and media about forestry and governmental regulations. Soon, a second reason for these increased information activities became apparent. The minutes from a SPF meeting in 1961 report a discussion following the attempt from EEC industries to persuade their governments to maintain trade barriers against countries outside the EEC. The strategy traditionally used by the Swedish P&P industry on these occasions was to send information to the EEC industries stating the ‘correct facts’. The same strategy was also used in this case. Kastrup suggested that, this time, information should also be given directly to governments and consumers in the EEC countries.

“Mr. Kastrup felt that the strength of the arguments would gain, not by trying to convince our competitors that the Scandinavian paper industry had no material advantages, but instead try to convince governments and consumer organisations of the advantages the Nordic countries could offer in terms of basic economic and ecological principles: and that they therefore should be entrusted with the production of certain basic, staple products in an expanded EEC, with other specialised paper qualities continuing to be produced by
In 1962 the question of the industry’s relations with the domestic and international public was again raised. The majority view in the trade association was that SPF (mostly involved in trade negotiations at the time) should adopt a reactive strategy. When the EEC paper industries tried to influence governments or public opinion, the Swedish P&P industry should meet these accusations only with facts describing the real situation. It was however not an unanimous decision. An opposing point of view was that the association should be more active and provide direct information to their intermediaries together with other members of the processing and distribution chain, which would be a way to avoid direct confrontation with the paper industries of the EEC. A third view was that a more aggressive strategy was required to meet any false accusations. A result of the debate was that the person employed and given responsibility for public relations should emphasise international relations. Furthermore it was determined that a brochure describing the conditions of paper production in Sweden would be published (SPF, 1962 September 20). Yet another result was the introduction of ”Forest industry information days” in 1963, which were intended to provide the media with information about the current activities and future plans of the forest industry (Skogen, 1963:410).

In 1963 ideas concerning the increase in information activities coincided with the attempts to strengthen the role of SPF as discussed above. Although the idea of a joint sales organisation had been rejected, intensified joint information activities increased during the following years. The rate of this increase was not, however, spectacular. The information brochure decided upon in 1963 was, for instance, first published in 1966. During this period the information policy changed. In 1965 the need for a more active information strategy was again recognised and contact was made with a professional lobby organisation¹³³ to implement this. One of the results of this more active information policy was the publishing of a newsletter in 1967. The letter was published in four languages, ten

¹³² He is here implicitly referring to the ”live and let live” principle.
¹³³ At this time the expression used was an ”international Public Relation organisation with good connections in the EEC and leading circles in the UK” (SPF, 1964 September 22)
times per year. The circulation of this newsletter gradually grew as copies were distributed to policy makers, newspapers and large consumer groups in the processing and distribution chain throughout Western Europe.

From now on this more active information strategy was also aimed directly at the public. Direct competition with plastic products in some areas (mainly plastic carrier bags) and increasing awareness of environmental issues were obvious motives for these activities. In 1966 when the paper industry finally published their information brochure decided upon some years ago, the CEO of the trade association (SPF) saw this as "The first important step on the road towards more active promotional and public relations oriented activities from the association." (SPF board meeting 1966 November 30).

At the end of the 1960’s, growing public concern regarding the industry’s operations resulted in an increasing number of official hearings which involved the trade association. There were many reasons for the increase in public concern, one of which was the ongoing structural rationalisation within the P&P industry. In the period 1959 to 1969, 49 mills had been closed down (Svensk Skogsindustri i Omvandling, 1971). Local opposition against these shut-downs had obviously caught the interest of the politicians. As described in the introduction a group of experts from the industry and the department of finance was constituted in 1967. This group was intended to co-ordinate all ongoing investigations but special attention was to be paid to the investigations focusing on the much needed structural rationalisations. These were undertaken by the trade association as well as the paper workers union and in governmental committees. Valfrid Paulsson was appointed to chair the group. He was also appointed CEO of the National Environmental Protection Agency (Naturvårdsverket) which was founded at the same time. The foundation of this agency was commented upon in the SPF Annual Report, as follows:

"During this year governmental authorities showed an increasing awareness of environmental issues i.e. questions regarding the quality of air and water, which resulted in the formation of the National Environmental Protection Agency." (SPF Annual Report, 1967:5)
In 1968 environmental issues were included in the SCPF agenda several times. The situation was summarised in the minutes from a board meeting on February 13, 1968.

"The forest industries together presently invest about 0.3 MSEK annually in environmental research - measures within the mills are left to the industry which does not have any co-ordination at all within this field." (SCPF, 1968 February 13)

The background to the awakening interest in environmental issues was not only the formation of the National Environmental Protection Agency, but, and perhaps more importantly, that the authorities had begun to prepare for new legislation in the environmental area. A committee with the task of preparing proposals was appointed. The emerging environmental debate was adding extra pressure to the industry, which was facing difficult market conditions at the time.

"Pulp and paper engineers are often worried by the irrational level of the debate concerning these two issues, and feel that it has become somewhat of a "war on two fronts". On the one hand we are expected to survive the uncertainties of business cycles and ensure employment by industrial restructuring. On the other hand we are often prevented from doing this - as we see it - by the imposition of unnecessary limitations and demands concerning water usage." (Rydholm, 1968:415).

Among all the ongoing investigations there were therefore several focusing on environmental issues. These issues will be discussed further in the following, only the debate on the possible merger between SPF, SCF and two minor trade associations (Svenska Trämasseföreningen (Swedish Wood Pulp Association) and Svenska Wallboardföreningen (The Swedish Wallboard Manufacturers)) will be discussed here. The decision to merge was taken in 1967, and in 1968 the new organisation, The Swedish Pulp and Paper Association (Svenska Cellulosa och Pappersbruksföreningen, SCPF) emerged as the united body. The background to the merger was the ongoing

134 Speech addressed to the Swedish Association of Pulp and Paper Engineers (SPCI).
integration of the industry, which had resulted in an increasing number of companies becoming members of two trade associations (SCPF, committee report, 1967 October 9). In the beginning of 1967 SCF had 62 registered members and SPF had 57. Even if these figures are not directly comparable, the 44 companies that became members of the new SCPF in 1969 indicate the large number of overlaps existing at the time of the merger.¹³⁵

**Volume expansion and the demand for wood**

At the end of the 1950's the fear of a wood shortage which had been seen as a threat in the beginning of the 1950’s had largely been ignored, since, according to the conclusions drawn by a public hearing published in 1956, the supply and demand of wood was balanced. The volume of future growth, and if this could match future demand was, however, subject to debate. The large increase in production capacity at the end of the 1950’s did not only cause a temporary imbalance on the markets, it also caused renewed concern for a future wood shortage. In 1957 the Joint Committee of Trade Associations (Skogsindustriernas Samarbetsutskott) initiated new studies to examine the conditions for future expansion. The conclusions drawn were that in 1959 existing conditions were unfavourable. On a nation-wide basis the need for wood would exceed the annual growth as soon as 1963. The southern regions were considered to be better situated than the northern parts. The conclusion that the industry would face a shortage of wood in 1963 if the extensive investment plans were to be implemented was commented upon by the daily press. Some journalists accused the forest industry of making over-optimistic investment plans. In the journal Skogen (1959:129) conclusions drawn by the public media were met with some scepticism. There was no certainty regarding the prediction of future demand.¹³⁶

¹³⁵ Membership in the trade associations was not strictly tied to either the producing mill or the company owning the mill. That is mills belonging to the same company as well as the company itself could be a member in SCF and/or SPF before 1969 (SCPF, Market Survey 1969).

¹³⁶ In retrospect, as argued in Svensk Skogsindustri Omvandling the conclusions of the 1957-1959 report somewhat overestimated future demand as it was based on both expansion projects already underway and on planned projects (Svensk
The situation was commented upon by Bengt Lyberg, the CEO of MoDo, in a speech where he exemplified the difficulty of making forecasts about supply and demand due to the changing estimates regarding the supply of wood available from the far north of Sweden. Lyberg argued that these indeterminate forecasts were deliberately initiated by politicians to enable the state owned company (ASSI) to invest in new paper machines in this part of the country.137 He concluded his speech by stating that he was one of the few who were optimistic about the future supply of wood. But even so;

"Whether you are an optimist or a pessimist, it must be obvious that there is a limit to the continued expansion of capacity." (Lyberg, 1959:8)

In the following years, consensus seems to have emerged regarding the problem of wood supply to the industry and agreement appears to have been reached that at that time any large expansion of the Swedish P&P industry was out of the question. In future only a gradual increase in production capacities would be realistic (cf Pihlgren, 1965). Moreover, any expansion prospects were dependent on high productivity in forestry and the price level of wood. Consequently, as the demand from Western European markets was predicted to grow in the long-term, the role played by the Swedish industry would diminish.

"The conclusion to be drawn from this development - which is only summarised here - must be that the Scandinavian industry’s ability to influence price levels within the major markets of Western Europe will, with all certainty, become of decreasing importance in the future." (Mossberg, 1964:3)

In 1966 a public inquiry concerning the supply/demand balance of wood (Virkesbalansutredningen) presented its preliminary conclusions regarding wood supply from the northern and central parts of Sweden. If capacity was to increase according to forecasts, the result would be a

---

137 The Parliament decided in 1959 that ASSI was allowed to build an integrated pulp and paper mill at Lövholmen, Piteå. The estimated capacity was 100,000 tons kraftliner (ASSI, Annual Report, 1959).
shortage of wood in 1970. In the SCF Annual Report this conclusion was commented upon as follows:

"Reactions following such a pessimistic forecast were surprisingly cautious. It was felt that it would be preferable to await the results of the definitive national survey before drawing any conclusions regarding the overall wood supply situation." (SCF, Annual Report, 1966:5)

The final report in 1967 did not, however, attract much attention. This was somewhat surprising since the result was contrary to that expected. The forecast was that there would be a balance between supply and demand for wood in 1970, and the long-term perspective indicated a sufficient re-growth in the forests (SCPF, Annual Report, 1967:7).

"Since the 1930’s discussions concerning the Swedish forest industry’s supply of raw material have been influenced by the assertion that forest resources were not sustainable. The prophets of doom propounding this scenario have, however, always been confounded by reality. The present commission’s initial findings point to an expected deficit in northern Sweden - far smaller than many had forecast - but also to a considerable surplus in Central and Southern Sweden. I am of the opinion that this does not necessarily mean that expansion prospects are limited to certain regions.” (Lyberg, 1967:7)

Now that the shortage of wood was no longer seen as immediate, a new threat emerged, as forestry methods producing sufficient volumes of wood came under criticism. In 1964 a new law was passed concerning the conservation of nature. This was the first time that the rights of land owners had been restricted in areas of significance for nature preservation (Hellström and Reunala, 1995:31). The situation in the 1960’s was one of increasing mechanisation of forest operations, including the use of chain saws, tractors and the building of roads enlarging the areas in which industrial forestry could take place. In this industrial forestry, the use of fast growing species such as Pinus Contorta,138 large clear-cutting, ditching and fertilisation played an

138 Pinus Contorta is a North American species of pine introduced to Sweden in
obvious part (Stridsberg and Mattsson, 1980).

In the 1960's it was mainly the use of chemical herbicides and the clear-cutting of large areas that caught the attention of environmentalists (Hellström and Reunala, 1995). Their concerns were generally ignored and few comments about the environmental responsibilities of forestry came from the industry in the period 1959-1968. When considered at all, environmentalist demands were either dismissed as incompatible with industrial forestry (cf SPF Annual Report, 1967), or industrial forestry was even regarded as a prerequisite for nature conservation (cf Hedlund, 1968:2).

**New actors of importance**

As described in the section covering the period 1945-1959 the forecasted decrease in market shares in West European markets was closely related to new countries emerging as low price producers of pulp. However, as time went by, the intensity of the threat diminished. In a 1968 survey it was concluded that the feared impact of new producers probably had been exaggerated in the past, as costs and problems related to the creation of an infrastructure had been neglected. The conclusion of the authors indicates a re-evaluation of this perceived threat. This was supported by other research done at that time. Optimism about long-term growth in demand diminished the perceived influence of new producers to a minor problem (TUA, 1969:142; Svensk Skogsindustri i Omvandling, 1971:294)

"The expected competition from the tropical and sub-tropical forests will not have the effect of reducing global market price levels as the production costs are high, and any increase in production capacity will be negligible. These will probably not even be able to keep place with the increase in consumption in the countries concerned." (Hagner and Häggström, 1968:19ff)

However the balance between Sweden’s annual growing stock of timber and the future world demand for pulp and paper became the

---

the 1920’s, but not generally used in Swedish forests. SCA introduced the species and is the company that had been planting most plants and was its strongest advocate.
subject of many opinions and comments regarding the development of the industry (cf. Pihlgren, 1965; Sundblad E. 1967). Such comments often concluded by emphasising the need for more value added products, and were accompanied by complaints about the increasing prices of wood. In the period 1959-1965 average prices of pulp and paper increased by 1-2% annually whereas the average price of wood increased by 35% (Svensk Skogsindustri i omvändling, 1971:137). The solutions suggested to solve this problem were to increase forest productivity (for instance by fertilising), making it profitable to harvest wood in more distant areas, and to develop technology which would allow greater utilisation of the tree in the production process. Increased importation of wood or an international establishment of production were also seen as alternatives.

“One idea which has been the subject of discussion is that of starting a strategically located pulp industry which would be supplied by wood imported from overseas, exporting pulp by return shipment. Calculations have shown that, for example, wood importation from the west coast of North America to a Swedish west coast harbour would not be out of the question. Another interesting possibility recently examined, is to use domestic capital to establish pulp production factories abroad.” (Stockman, 1964:164)

Some attempts in this direction had already been made. In 1964 SCA came to an agreement with a Canadian company to build a pulp mill with a capacity of 250,000 tons. 50% of the output was intended for the West European markets. The main reason for this was the expected wood shortage in the north of Sweden (SCA tidningen, 1964). At the same time Billerud was planning an operation in Portugal. This commenced production in 1966, and its relevance to the domestic wood supply situation was obvious.

“By building this pulp mill we will be able to use raw material, previously used in Sweden for the production of dissolving pulp, for paper manufacture - principally that of fluting at Gruvön.”

140 Used as raw material for the production of rayon fibre, cellophane and cellulose lacquers.
A third example is STORA’s investment in Nova Scotia (Canada). This however has a longer history than the first two examples. Abenius (1959) reports that the initial contact was taken in 1956. The reason for this was also the expected shortage of wood in Sweden. Jacob Wallenberg (chairman of the board in STORA) expressed the reason for the investment as “The temptation of Canada’s rich and abundant forest resources” when, with the benefit of hindsight, he recalled the investment as the worst ever made by STORA during his time as a member of the board (Wallenberg J. 1976).

Even if the price of wood was an important factor which contributed to the expansion of pulp production abroad, the necessity of reducing transport costs was also of vital importance (cf Mossberg, 1964). Comparing wood and transportation costs (to central Europe) from Sweden and the Eastern coast of North America, Erik Sundblad (1967) concluded that the difference in total costs were about SEK 120 per ton, in North America’s favour. The lowering of transportation costs and making low cost wood available were, according to Sundblad, the two most pressing structural changes required in the 1960’s. The need to cut transport costs was the reason for the large investment in a new transportation system made by SCA in 1965 (SCA tidningen, 1965; Soderstam et al, 1969). The new system introduced by SCA in 1967 was followed by the introduction of similar collection and distribution systems by all major companies in the industry.

---

141 Marcus Wallenberg sr was chairman of the Board 1917-1943. Jacob Wallenberg his son, was member of the Board from 1941 and chairman 1950-1976. Marcus Wallenberg, his brother, was member of the Board from 1944 and chairman 1976-1980. Peter Wallenberg, son of Marcus jr, was a member of the Board from 1976, and chairman 1985-1992.

142 The mill was started in 1959 but did not generate any profit until the end of the 1960’s. In the speech held when resigning from the board of directors in STORA Jacob Wallenberg argued that further investments were necessary in 1976. “We have also learnt that in order for us to profit from the Nova Scotia investment we need to spend another billion. What a delightful prospect!” (Jacob Wallenberg, 1976)
The choice of a future production concept

The beginning of this period was characterised by an investment boom. Large paper machines were installed to produce mainly newsprint and kraftpaper, as a way to add value to the production of pulp in the northern part of Sweden.

"In Norrland north of the Ljungan river alone, four new kraftpaper mills are expected to be commissioned in the beginning of the '60s: Wifstavarv, Wäja, Munksund, and Assi: and to these can be added Ortviken (newsprint) which came on stream in 1959-59. We have thus taken a great step forward towards the new era of the paper industry, which I spoke about at the Norrlands exhibition in Hörnösand in 1958." (Enström, 1959:92)

The chosen method of adding value to forest industry products mainly used during the period 1945-1958 was the concentration on the development of a large number of special applications for the pulp produced. Advanced pulping technology made such "value adding" possible. This strategy could be used because of the increasing quality of different pulp grades and the utilisation of by-products in both papermaking and the chemical industry. MoDo and Billerud were good examples of companies pursuing this strategy (cf Lyberg, 1961; Skogens Skördar, 1962). In 1958, Billerud made a survey of the existing and future applications for various pulp grades, which may serve as an example of the opportunities available at the time. In this survey Billerud identified a wide range of end products for which speciality pulp grades could be made. This range of end products included products such as undergarments made from rayon, viscose sponges (i.e. viscose pulp), plastic wall-panels, household tissue, greaseproof sandwich paper, waxed paper for food wrapping, shelving paper, paper tablecloths, a variety of packaging papers, tyre cord, coats, parasols, carrier bags and so on. The Billerud survey shows that by using technologically advanced pulp grades 37 different applications could be produced. The survey did however not pay much attention to paper grades of the traditional bulk type, such as newsprint, magazine paper and standard packaging papers (Billerud, 1958).

As suggested by Axel Enström, the second way to add value to the
products would be to continue to emphasise the integration of pulp into a specialised range of paper products. The large investments in newsprint machines was one example of this. Kraftpaper and kraftliner offered further possibilities as did corrugated board. Following the large investments made in these products in the beginning of the 1960’s, many experts argued that the industry must continue to add value to their products in order to meet increasing international competition (cf Pihlgren, 1965; Sundblad E. 1967; Wohlfart, 1967). This could be done by either forward integration, or, as many companies intended at that time, to start the production of magazine paper. In Ncb Nytt 1968 (special edition) one example of such a plan was announced. The new machine was to be the largest in Europe designed for LWC (Light Weight Coated paper). The plan was directly related to the need to add value to the products made by the Swedish P&P industry.\textsuperscript{143}

As technologies developed the link between pulp production and the chemical industry more or less disappeared (cf Lyberg, 1959). In spite of the high investment costs involved in the chemical industry and the high degree of know how required, the large scale operations of this industry began to give advantages compared to the P&P industry. As a consequence of the development of the chemical industry, plastics became a threat to several pulp based products. In Paper Mills News from 1960 a report from a conference about the future relationship between paper and plastics was published. At this time the general view in North America was that paper was loosing ground and that plastics were taking over in many product areas. In Sweden this was not publicly discussed until a few years later. The general opinion was that products combining plastics and paper would increase in the future (cf Hedlund, 1964;\textsuperscript{144} Pihlgren, 1964). However, the future growth of plastics gradually became a topic included in most speeches and articles during these years (cf Sköld, 1968; Mossberg, 1968;\textsuperscript{145} Rausing G. 1969). As a result of this rapid development of the

\textsuperscript{143} This plan never materialized. However there were similar plans in the decades that followed. STORA and the Forest Owners Association were two companies involved in those attempts. In chapter eight another example of value addition, Iggesund's investment in board is considered.

\textsuperscript{144} Gunnar Hedlund, CEO of Ncb 1961-1978.

\textsuperscript{145} Eje Mossberg, CEO of SCA 1960-1972.
chemical industry, the alternative open to the pulp companies was to integrate their pulp production into paper products in the 1960’s. The choice was not so obvious in the market conditions of the period. The expansion of newsprint capacity resulted in a temporary oversupply in 1959, a situation that was also later seen in the kraftpaper market. The companies investing in these grades were thus forced to examine their long-term strategy.

"If we can now live in a time of comparative peace in the world - complete peace is probably out of the question - I am convinced that the consumption curve for newsprint will continue to increase in the future, perhaps showing even greater forward leaps than we have previously seen. The difficulties that over-production and excess capacity have been responsible for, and which we manufacturers by no means are unaware of, will, with all certainty, be of a temporary nature.” (Sydow, 1959:7)

A further argument in favour of the integrated production of pulp and bulk grades of paper was the "live and let live" policy mentioned earlier. In this policy the difference between bulk products and specialised products was clarified. Bulk products were newsprint, kraftpaper, kraftliner and greaseproof. These were the products traditionally produced by the major Swedish and Nordic producers and the general feeling was that this would not change. The P&P industries in Germany, France and Great Britain produced more specialised products such as printing & writing paper, i.e. products that were customised (cf Mossberg, 1964)

**How to increase competitiveness**

As indicated earlier, structural rationalisation was regarded as one of the most important factors in the reduction of costs, and was often seen as the concentration of production to a few large units. In most speeches on this subject, direct comparison was drawn with the pulp mills in Finland and the US. The conclusions of these comparisons were that the size of the Swedish pulp mills represented only about 50-70% of the size of the average mill in Finland and the US (Mossberg, 1965). The immediate solution to these differences would, obviously, be to build a few large mills, a conclusion which,
However, is not as obvious as it would appear. Heijne (1966)\textsuperscript{146} is only one of the authors who stressed the intricate balance existing between gains made from decreased production costs on the one hand and the increased costs for wood transportation on the other. Furthermore, the ability of the market to absorb additional volumes had to be considered, since the concentration of production to a few large units often resulted in a total increase of capacity. Heijne also considered the possibility that existing cartels and the resistance to change within the whole of the P&P industry could delay some of the necessary changes, although this hypothesis could not be proved.

At the end of the period the term "structural rationalisation" was so frequently given as the standard solution that several CEOs of P&P companies questioned its total industrial relevance. Sundblad E. (1967) stressed that structural rationalisation was a natural ingredient of industrial evolution. But if the basic premises for the construction of large scale mills did not exist (i.e., profitability) the concentration of production from small units to new large units was impossible. Lyberg (1967) expressed the opinion that it seemed as if structural rationalisation was often used to stress the need for a drastic renewal of the P&P industry. Reviewing historical development he argued that this was not true, as the industry had expanded its capacity by about 100\% in paper and 60\% in pulp during the period 1955-1965. Which meant that a gradual renewal had already taken place and that there was no need for any drastic action.

An idea that developed from this thinking were the combines (kombinat). A combine is a mill site in which a saw-, pulp- and paper mill and/or other wood processing industries are combined. The point was that the combine would be able to use the entire tree, a way of simplifying the logistics involved. As only a few new mills were built in this period the concept was not implemented very often. The Forest Owners' Association used the idea in Värö and Mörrum, and similar plans were included in other projects (Vallvik (Ncb) and Braviken (Holmen)).\textsuperscript{147}

\textsuperscript{146} Otto Heijne, CEO of Munksjö 1939-1961.
\textsuperscript{147} More or less developed combines exist in many places. One of the main points when building pulp mills in the North of Sweden was to use the by-products from the saw mills. Therefore the saw mills and the pulp mills were often built near each other.
"We must begin to accept the Russian concept of integrated wood processing combines, consisting of many different production lines and access to a raw material stock of about 5 Million m3. Only when delivery of whole trunks to these combines can be undertaken, and a flexible system of production lines and processes utilised can the yet unrealised full potential of complete wood usage become of real commercial interest." (Edström, 1964:151)

Equally important as these structural ideas were continuing improvements and rationalisation. As costs increased, attempts to increase productivity became more important than ever, and they were often the subject of speeches (cf Mossberg, 1962). A more aggressive method of combating the problem of a future shortage of wood and increasing cost levels in Sweden emerged in the middle of the 1960’s. The initiatives taken to establish pulp producing units in Canada and Portugal by STORA, SCA and Billerud described in a previous section, were also part of the strategic response to the actions taken by the North American industry. As the North American industry expanded, pulp was able to be sold at low prices on the European markets when demand was low in the US. Initially this only had the effect of eroding profit margins, but when Northern American companies took the next step and started either to acquire companies or to form alliances with converters in West Europe, the threat became much more serious. This trend had been seen in the early 1960’s (cf Mossberg, 1965). In 1970 North American companies owned or controlled some 35 pulp and paper mills and 69 companies in Europe, involved in converting operations. The main reason for this invasion was the current over supply in North America and the large united market emerging as the EEC was formed.

The response from Swedish companies was to expand their operations in two ways. The first, discussed more in detail above, was to invest in pulp production abroad. The second was to follow the

148 According to Svensk Skogsindustri i omvandling (1971) the acquisitions started in 1958. Initially they were few and did not affect Swedish export until 1963-1965, and it was only then that the phenomenon was debated on in speeches.

149 Furthermore the consumption of pulp and paper products was low in Europe compared to the US i.e. Europe could become a future high growth market.
American example and acquire converting companies in West Europe. SCA acquired four converters producing corrugated board in 1963 and 1964. Billerud bought a company in Scotland producing sacks in 1964, and it was stated in 1965 that "It is probable that future development will continue to show an increasing trend towards this." (Billerudsörnen, 1965:2 page 3). In 1971, 16 Swedish engagement in the EEC was listed in a survey (Svensk Skogsindustri i omvandling, 1971:402). This international expansion became obvious in the 1960’s and the accelerating internationalisation can be illustrated by the following statement made by Gabrielsson CEO of Holmen, who considered it necessary to comment on the trend even though his own company at the time did not have any plans for international expansion.

"The development of larger market units has forced us to all consider the possibility of company formation or acquisition abroad, and many of our members have already taken such steps. Holmens Bruk does not, at the moment, have any plans in this direction." (Gabrielsson, 1965)

Erik Sundblad summarises the situation facing the P&P industry in a speech in 1967. The speech started by examining the change in competitiveness resulting from increased wood prices and the reduced transport cost advantages of the Swedish P&P industry. Furthermore he saw a major distinction in the cost of capital. The only solution to these threats was to concentrate on products in which the added value was high. This strategy faced two obstacles. The first were the high trade barriers facing value added products. Therefore some kind of association to the EEC was seen as vital to the industry. The second was that higher added value also required more labour intensive production. The high cost of labour in Sweden, compared to major competitors, could only be reduced by political means.

"Taking these factors into account, future concentration upon increasing value added production demanding increased labour input and labour costs may be considered as somewhat uncertain or doubtful. But this is the only way open to us. Both of these problems -

150 The reduced advantage was in comparison to the North American industry.
labour costs and customs duties must be addressed and resolved if we are to succeed in maintaining the value of our Swedish basic raw materials - mineral ores and forest products.” (Sundblad E. 1967:12)

The same arguments are applied by Eije Mossberg in 1968, although Mossberg's final conclusion was somewhat more visionary.

"I can therefore envisage the necessity of creating different forms of pan-European concerns and conglomerates which would be as large, as integrated, and as efficient and profitable as those in North America. We must now start to think and act as Europeans and forget and reject the concept of historical national boundaries.” (Mossberg, 1968:8)

These statements were made at a time when profitability was low and problems in financing required investments were more acute than ever (Svensk Skogsindustri i omvandling, 1971). Gunnar Hedlund, CEO of Ncb, addressed the problem in his keynote speech at the Annual Forest Week Conference in 1968.

"This year (1968) sees the forest industry in its greatest crisis since the end of World War Two. It is indeed a crisis, a crisis of overproduction.” (Hedlund, 1968:2)

4.4.3 1959-1969 - The issues

The increasing costs/regulations in Sweden

During the period 1945-1958 criticism of Swedish economic policy in general could be seen. High wage levels and overall cost levels in Sweden were particularly criticised. As competition intensified and markets became characterised by oversupply the need for rationalisation, productivity increases and an overall reduction of costs became vital for the long-term survival of the industry. During the latter years of the period concern about the future survival of the industry emerged as profit margins continued to fall.

During the 1960's increasing cost levels remained a very important
issue. An internationally acceptable cost level was seen as imperative in order to stay competitive. The issue was how to overcome the pressure of increasing costs and regulations in Sweden.

**How to achieve a stable market balance**

The market balance discussed above was of the utmost importance in the 1960’s, and a large number of agreements were made regulating production volumes. This issue, which was extremely important for the Swedish P&P industry was, further complicated by the fact that North American producers found it difficult to accept agreements on the reduction of their export to Western Europe. The North American P&P industry's ability to dominate the market had, at the end of the 1950’s, become a reality for all involved. The paradox was that overall volumes had increased, price levels were stable, but costs had also increased. The road to what Christian von Sydow called "a state of unprofitable wealth” had been paved. In this context the main problem was thus how to reach a market balance which allowed a predictable and stable growth in capacity.

**The international trend towards trade liberalisation**

The period was characterised by intensive international trade negotiations. The stability that resulted from the foundation of the EEC and the EFTA blocks, opened the way for negotiations about reductions in trade barriers. Great Britain's opposition to these presented an obstacle during the entire period. Applications from Denmark and Great Britain in 1961 for membership of the EEC was also an enormous risk factor, as about two thirds of the entire export, if these countries were accepted, would be shipped to EEC countries. These applications were not, in fact, accepted but renewed applications were made at the end of the period which caused new concerns about the future of trade liberalisation.

In negotiations concerning future trade regulation the Swedish industry was often accused of setting high prices on pulp, and low prices on paper products in order to favour the domestic production of paper products. These accusation of implementing a "scissors policy" were made in this period as well as the period 1945-1959. The Swedish strategy was the maintenance of the "live and let live” policy,
i.e. to continue the status quo regarding sector specialisation.

The increasing attention from the public and authorities

As international involvement increased, concerning both trade agreements and negotiations about market balance, the need of a better organised trade association with wider powers of authority was conceived. This requirement was furthered by the obvious need for more active information which could be directed towards national as well as international decision makers. This concept of an active joint marketing organisation was first proposed in 1962 but then found no support. In other areas the role of the trade associations gradually grew, as the need for more information to be presented to decision makers was recognised. Furthermore, the need for a more active information policy directed towards the public about the increasing competitive issues between paper and plastics became obvious by the end of the period. Environmental issues as well as ongoing structural changes taking place within the industry were other topics about which the public needed more information. The increasing number of committees carrying out various hearings etc. also required information and opinions from the trade association.

Within this broad trend the environmental movement became increasingly active towards the end of this period. Several experts commented on the environmentalists and their demands during the latter years of the 1960’s. Their attention was mainly focused on forestry and the pollution of water and air. Obviously there was uncertainty within the industry as to how to respond to this new factor.

Regarding the supply of raw material, the situation seems to have remained the same as in the preceding period. There was still an abundance of wood in the south of Sweden, which was one of the reasons given for the commissioning of three new pulp mills in the South. In the North, the fear of a long-term wood shortage remained, although no acute shortage was predicted. In addition to the immediate problem of wood supply, most forecasts indicated that Swedish producers would gradually lose market shares on Western European markets due to the slow growth of the Swedish forests, which presented yet another problem which had to be solved, in one way or another.

This issue was a part of the growing awareness in Sweden (and the
rest of the Nordic countries) of the need to define a policy in order to maintain market shares in West European markets in the future. How was the demand growth from these markets to be satisfied in the future?

**North American activities in Europe**

The large investments in paper machines made at the end of the 1950’s and the beginning of the 1960’s were one way to meet increasing international competition. The concentration on bulk paper was the result of many factors, the example set by the competition. Low cost energy (hydro-electric power) and the wood species available in the Swedish forests were other vital factors.

Pointers towards a future in which plastic products and products based on a mixture of paper and plastics were to play an important part increased. This, together with the projected future shortage of wood was the background which led to the increasing interest in value added products. MoDo’s investment in the production of writing paper in the north of Sweden, Iggesunds investment in the production of board, and Ncb’s plans to invest in LWC, illustrate some of the activities which were the result of this increasing awareness.

This period of intensive investment was soon thereafter followed by a second, initiated towards the end of the period, when North American companies began investing in Europe. The main targets for their investments were producers of tissue, writing paper and corrugated board. The Swedish companies were forced to react to this challenge.

**New substitutes and new actors**

As described above the use of plastics as a substitute for paper increased during this period. This was most obvious in the production of carrier bags. In the long run however several similar products could be affected by the increasing use of plastics. The majority of experts saw this as a new opportunity, since plastic in combination with paper opened the possibility for a whole new range of products.

The threat from the new countries entering the pulp market diminished in the period 1959-1968. In the long-term, demand for pulp and paper products was so large that the marginal volume coming
from new sources of production could easily be absorbed without any problems. This view was also supported by the fact that the actual volume increase was much lower than earlier projections had indicated.

The second part of the chart of important issues during the period can now be constructed. As described above, some issues are the same as the chart covering the period 1945-1958: Some have however disappeared and some new ones have entered.

**Figure 4.5. The issue chart 1959-1968**

4.5 1969-1982 "Boredom is not our problem...."\(^{151}\)

---

151 Quote from a speech given by Erik Sundblad, CEO of STORA, in 1977.
4.5.1 The Swedish social and economic development 1969-1982

If the period 1959-1968 was a period of stable growth of demand and thus generally predictable, the period 1969-1982 can be described as the opposite; unstable, with sluggish demand and therefore unpredictable. However, initially this period followed the same trend as the preceding period. 1969 was a year of extreme growth when the GDP increased by 5%, the highest figure since 1964 (Sandelin, 1984). Optimism about the future was understandable, particularly since 1970 showed a similar growth in the economy (4.9%). Few at this time were able to forecast the imminent problems (Myhrman and Söderström, 1982:94). In retrospect, a number of indicators of what was to come can be identified that also describe the societal climate of the time. Lundberg (1994) argues that the growing awareness of environmental problems and the changing attitude towards the market system and entrepreneurs were two qualitative changes in society. As environmental problems were often connected with the P&P industry, these problems are examined below. To allow a better understanding of the changes taking place in the P&P industry, a wider background study of societal attitudes and values is of importance.

Lundberg (1994) argues that the increasing welfare caused social demands to gradually change from purely materialistic goals to demands for increased equality, improved social and job security as well as improvements in environmental considerations. Consequently profitability as the major driving force in the market economy, was questioned. In fact, the industry was seen as outdated by radicals - a relic from the old industrial period. One result of the qualitative changes was an increasing politicisation of the economic system. Interest groups such as the labour unions expanded their functions from wage negotiations into taking active participation in the societal debate and development (Lundberg, 1983:149-150). Åsling (1983) exemplifies this increased involvement with a statement from the Swedish Confederation of Trade Unions (LO) in 1974, suggesting that new projects in the P&P industry in the southern parts of Sweden should be stopped, since wood from the South must cover the shortage in the North. Attempts at interference of this sort were far from their traditional role of negotiating wages and improving working conditions.
Myhrman (1994) argues that the change in the Social Democratic party’s programme at this time not only depended on the election of 1966, but could also be traced to the miners strike in the north of Sweden (LKAB) in 1968. According to Myhrman the newly elected party leader, Olof Palme, wanted to appease the growing leftist movement. Consequently he and the party were forced to take a more leftist stand in the debate.

"The Social Democrats, led by Olof Palme, became much more outspoken in their criticism of the market economy and its failings. But now it was not only the market per se which came under attack. Even company executives and owners were accused of abuse of power, inefficiency and injustice." (Myrhman, 1994:185)

The economic policy of the post war period, inspired by Keynes, was successful and since it included attempts to dampen business cycle variations, it is not surprising that initiatives were taken to attempt to hold back the investment boom in the beginning of the 1970’s. The effect of these was obvious and the growth rate of the economy decreased from 4.9% in 1970 to 0.9% in 1971. This down-turn only lasted a short time, and by 1972 the growth in the GDP had increased to 2.3% and in 1973 and 1974 another boom took place.

A result of this was a public debate concerning corporate profits. "Three key figures have appeared on TV screens and newspaper pages during the last weeks." (Svensk Papperstidning 1974:13 page 459). The figures represented estimations of total profits made by the P&P industry during 1972-1974. The P&P industry workers union accused the industry of excessive profits and argued that workers should have a fair share of these profits. During this debate a feeling of being misunderstood was spreading in the industry, particularly since the rate of new investments was increasing rapidly and the US dollar was devalued in 1973, making US competitors even more competitive.

"In the public debate and discussions concerning profits it seems to have been overlooked that the forest industry is an export dependent industry, in which profits fluctuate in response to market conditions, and overall profitability can only be judged in the long-term...

152 The three key figures were, MSEK300, MSEK1,600 and MSEK 3,000.
perspective. Also forgotten are the results of inquiries and memoranda which complained about and repeatedly stressed poor profitability of the industry.” (Andreasson, 1974:459)

This development, combined with the oil crisis in 1974 and the expected down-turn in the economy, forced the politicians (still following Keynes’ ideas) to take measures to increase domestic demand. A remarkable increase in domestic demand took place in 1975/76 when wages increased by 40% during a two year period (Myhrman, 1994:179).153

One of the most intense debates of the 1970’s focused on the introduction of wage-earners’ investment funds (Löntagarfonder) which was to be based on principles similar to the Swedish pension system. The funds thus created would be invested on the stock exchange. Capital for these funds was generated through taxation of public companies, in relation to profitability. The whole idea of these funds was that employees in private industries would benefit from the excess profits earned by their companies, and consequently, management of these funds was partly to be in the hands of labour unions. Since the wage earners’ investments funds were expected to become an influential factor on the capital market, the industry and right wing politicians feared that the result would be a gradual increase of socialisation. In the 1973 election campaign these "profit sharing funds" was the most important issue (Hadenius, 1996). The Social Democrats, however, lost the election and the proposed introduction of the funds was postponed.

During the recession of 1976, the Swedish government applied a policy intended to over-bridge the effects of international economic fluctuations (Myhrman, 1994). The idea was simply that government stimulation of domestic demand would reduce the effects of decreasing international demand. The politicians assumed that after some time, when the international economy had recovered, the Swedish economy would be able to take advantage of the subsequent growth period (Myhrman, 1978). This policy did not conform to the earlier "Swedish model", developed during preceding decades, which was mainly based on restraints in fiscal policy.

This experiment, however, failed although an increase in wage

153 Including increases in company taxation following the agreement.
levels, selective economic support to companies, building inventories (discussed in more detail in the following) and a number of other measures initially had a good effect. Myrhman (1978) reports that at the same time as unemployment rates abroad were the highest since the 1930’s, they did not increase at all in Sweden during 1975 and 1976. At the same time, as a result of the inventory support policy, stocks increased in the industry. In the pulp industry, one of the hardest hit, inventories exceeded the normal level by a factor of four in 1977 (Kemisk Tidskrift, 1977:1-2 page 84).

"After we had done this for some time (increased our inventory levels) Finland became aware of our strategy and started to do the same. Canada followed suit. As a consequence of this, global stocks of pulp became immense. It went so far that all our available storage areas were full, and we were forced to clear growing forest areas and cover them with asphalt to increase our storage capacity. Our customers could fly over our production facilities and see this for themselves. The result was that they ordered minimum quantities on a day-to-day basis. Price levels plummeted - it could be an excellent case study of mass psychosis..." (Wergens, 1995)

In 1976 a change for the better took place in the US, and it seemed as if the recession was over and that the Swedish policy would succeed. The international upturn did not, however, reach Sweden, and since wages and general cost levels in Sweden had increased since the beginning of the 1970’s, the industry had been put in an impossible situation. The easiest way out was to devalue the currency. Sweden thus decided to leave the European co-operation on currencies, called the "currency snake" and instead created a new currency "basket", tied to the Swedish currency. The Swedish currency was devalued twice in 1977, by a total of 16%. These devaluations were accompanied by a strict economic policy. The change in exchange rates that took place in 1978 made the effects of the devaluations marginal for many products, among them market pulp (DS 1979:5 page 17). The strict economic

154 The Swedish government supported inventory increases by direct subsidies between July 1, 1975 and July 1, 1976. These were given subject to labour not being laid off by the company.
155 Bo Wergens was employed by SCPF in 1972. CEO of SCPF 1978-1991.
policy reduced domestic demand at the same time as the devaluations did not completely compensate for increasing costs. The following table showing industrial production in Sweden and the OECD countries (average) illustrates the slow growth of industrial production in Sweden after 1975.

**Table 5.2. Industrial production, Sweden and the OECD**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>100</td>
<td>118</td>
<td>121</td>
<td>113</td>
<td>110</td>
</tr>
<tr>
<td>OECD</td>
<td>100</td>
<td>118</td>
<td>109</td>
<td>113</td>
<td>134</td>
</tr>
</tbody>
</table>

*(Myhrman and Söderström, 1982:101)*

The effect of this slow growth was a severe blow to the industry, since the result of low production was a decrease in profitability. This forced the government to provide selective support to individual companies and in some cases entire industries. The second oil crisis in 1979 added to the burden, and because of the selective industry support, the budget deficit increased. The beginning of the 1980’s was thus characterised by an unbalanced Swedish economy (Myhrman and Söderström, 1982). A large conflict on the labour market in 1980 did not help, and in 1981 GDP decreased by 0.6%. This was only the second year since 1950 that a decrease in GDP had occurred (Sandelin, 1984). In 1982 some signs of recovery appeared, following yet another devaluation of the Swedish krona by 10% in 1981.

Myhrman (1978) describes the growing uncertainty about the future that became apparent in the period, which was obviously the result of political economic policies (see also Myhrman and Söderström, 1982), but which also grew to affect the whole of society (Lundberg, 1983). The previously, fairly similar, policies of the western economies were in a state of change. There was no longer one "agreed way" to follow. One of the reasons for this were fluctuating exchange rates coinciding with the breakdown of the Bretton Wood system in 1973. Exchange rates had been stable since the end of the 1940’s, hence, fluctuations were practically unknown. Moreover, the changes taking place did not

---

156 The first was in 1977.
favour industries exporting to the US, or who were exposed to US competition, i.e. where the US dollar served as a price standard.

**Figure 4.6. The price for a US dollar 1970-1979 (in Swedish Kronor)**

The debate concerning future energy policy added to the growing uncertainty and the unexpected increases in oil prices in 1973 and 1979 showed that this was a global phenomenon. In Sweden the uncertainty caused by these changes was combined with the debate about the future of nuclear power - a debate that was to continue during the entire 1970’s. The general referendum held in 1980 about the future of nuclear power showed a majority in favour of closing down all nuclear power plants within the foreseeable future. This result fuelled the ongoing debate about future energy supplies, and the fear of increased energy costs almost paralysed energy intensive industries.

*SCPF Annual Report, 1979:10*
After being out of office since 1976 the Social Democrats won the general election of 1982. The proposal for wage earners' investment funds was also an important issue in this election. Even though the Social Democrats had changed their original concept in several respects criticism was hard and the fear of "fund-socialism" widespread. The Social Democrats did not win the election on this issue, but rather on suggestions about how to revitalise the economy and take Sweden out of the economic crisis (Hadenius, 1996).

Once returned to power, the Social Democrats had to take concrete measures. The devaluation of the Swedish currency by 16% in 1982 was probably the most spectacular of the steps taken. It was argued that this was a way to regain industrial competitiveness, since the employees would not get any direct compensation for the devaluation.

4.5.2 The pulp and paper industry 1969-1982

Increasing costs and lower margins
The first few years of the period 1969 to 1982 showed a higher economic growth than ever before, and signs indicating a coming downturn were ignored. The general optimism was, however, not shared by the P&P industry, still remembering the 1960’s, a decade of increasing volumes but also decreasing profitability. Decreasing profitability combined with structural changes made future prospects questionable. The devaluation of the US dollar in 1971 made this scenario even more frightening.

"It is obvious that the pulp and paper industry, with its overwhelming dependence upon export markets relies upon cost increases and inflation being held at the same level as that of our competitors in other countries to enable us to maintain competitiveness and profitability. We must however point out that cost increases and inflation in Sweden during the last few years do not satisfy these criteria or requirements." (SCPF Annual Report 1972:6)

---

157 The Social Democrats had been governing the country for 44 years before they lost the election in 1976.
Gunnar Hindemark (1972) discussed increasing costs in relation to governmental policy and the level of investment in the industry. He argued for a more business friendly policy.

"It is of great psychological importance for the investment decisions of many companies, particularly when their investment and cost calculations show only moderate profitability. They are therefore perhaps understandably unwilling to expose themselves to both economic and political risks and consequently profit expectations must be increased from today’s levels." (Hindemark, 1972:13)

The need for stable rules for the future was also discussed by Erik Sundblad. He concluded that increasing labour costs and social benefits together with the costs of environmental protection made the situation difficult.

"Should our costs increase in order to raise the standard of living of our labour force, it will, without any doubt whatsoever, reduce our investment potential and thus effect the level of employment.....The public debate has previously been exclusively concerned with demands upon the companies. It is about time the debate centered upon the question of profitability.” (Sundblad E. 1972:5)

These general views of the future were rather pessimistic. However, Matts Carlgren (1971) and Eije Mossberg (1972) were two CEOs who argued that the problems of profitability were possible to resolve and that, in the long-term the future was brighter. They were proven right and a gradual upturn in international demand occurred during the early 1970's.

As profits reached high levels in the following years a more optimistic view about future demand became widespread during 1974 and 1975. Lars Sjunneson commented on the situation in a speech delivered at the World Pulp and Paper Conference in 1974. His speech was basically optimistic about future demand but he underlined the dramatically increased costs for new capacity and the wood supply

situation. According to Sjunnesson the costs for new capacity had increased continuously since the 1960’s. He also stressed that environmental protection represented a new cost item which must be included when calculating total investment costs.

A few profitable years in the middle of the 1970’s were followed by a recession at the end of the decade. In table 4.3 development during the late 1970’s is illustrated, using profitability and solidity figures, published in a report from the Ministry of Industry in 1979 (DSI 1979:5). The companies are divided into four groups based partly on ownership structure and partly on profitability levels.

**Group A** includes companies owned by the various forest owners associations, Södra, Ncb and Vänerskog.

**Group B** includes Holmen, Iggesund, STORA, SCA, Korsnäs-Marma, Bergvik och Ala, Papyrus Hylte, Kopparfors and Nymölla.

**Group C** includes MoDo, Billerud and Uddeholm.

**Group D** includes ASSI (state owned), Fiskeby (controlled by the Cooperative Federation) and Munksjö (privately owned).

### Table 5.3. Profitability and solidity of the Swedish pulp and paper industry 1972-1977

<table>
<thead>
<tr>
<th>Group</th>
<th>Return on capital 1972 (%)</th>
<th>Solidity 1972 (%)</th>
<th>Return on capital 1974 (%)</th>
<th>Solidity 1974 (%)</th>
<th>Return on capital 1977 (%)</th>
<th>Solidity 1977 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A</td>
<td>2</td>
<td>7</td>
<td>11.2</td>
<td>18</td>
<td>-3.2</td>
<td>9</td>
</tr>
<tr>
<td>Group B</td>
<td>3.5</td>
<td>35</td>
<td>11</td>
<td>35</td>
<td>2.5</td>
<td>34</td>
</tr>
<tr>
<td>Group C</td>
<td>2.5</td>
<td>30</td>
<td>11.8</td>
<td>36</td>
<td>-1.5</td>
<td>28</td>
</tr>
<tr>
<td>Group D</td>
<td>0.5</td>
<td>24</td>
<td>15</td>
<td>26</td>
<td>-1.2</td>
<td>16</td>
</tr>
</tbody>
</table>

(DSI 1979:5 page 146ff)

The main characteristics of the successful companies (mainly in group B) were that they owned forests and hydro electric power stations, and that they maintained a careful investment policy during the early 1970’s, concentrating on value added products and forward integration. Finally, they all had a well organised sales and marketing function.

160 In DS I 1979:5 the companies were divided into two main groups, private companies and federative companies. These main groups were then divided into subgroups. The figures in the table are in some cases estimates from diagrams.
From the above, the general development from rather weak profitability in 1972 to a prosperous 1974 and then a return to a low profitability in 1977, can be seen. As the economic climate improved in 1980/1981 optimism returned to the sectors of the industry benefiting from increased demand. 1982, however, was a setback.

"Therefore, for the industry as a whole, this year was yet another showing less than satisfactory profitability. This gives increased cause for concern as profit margins in the pulp and paper industry have been far too low for many years." (Wergens, SCPF Annual Report 1982).

The devaluation of the Swedish krona by 16% in the autumn of 1982 and the signs of increasing demand gave hope to the industry, although uncertainty about future developments was still high. Profitability problems continued in some sectors of the industry and speculation about ownership restructuring and mill closures increased. Companies such as Södra, Ncb, Iggesund, Nymölla, Billerud and Munksjö were all mentioned as potentially being involved in mergers and acquisitions. Proposals for joint ventures were also frequent.

Investigations - a way to cope with an uncertain future

A result of conditions pertaining at the beginning of the period was that increasing attention was paid to the future development of the industry and this led to an increased number of investigations. In 1969 the trade association commented on this:

"The increased public interest in, and awareness of the activities of the forest sector is not only the result of public debate and discussion, but also that of considerable investigative activities, both public, and initiated by private and commercial interests. Of these the following may be mentioned....." (SCPF Annual Report 1969:29)

Twelve investigations were then listed dealing with issues such as the planning of infrastructure (mainly roads), taxation of trucks, supply of wood, tax policy, policy on forestry and structural changes within the P&P industry. Not included in this list were at least five national investigations concerning capacity expansion, the competition
between paper and plastics, structural change and the supply and demand for wood. In addition to these domestic investigations the industry was also involved in a number of international supply/demand studies. FAO and OECD reports were published on a regular basis.\footnote{Svensk Skogsin industri i Omvandling (1971) mentions eleven forecasts made in the period 1953-1970. I.e., forecasts that focused on the future demand for pulp and paper either in the entire world or in Western Europe.}

As has been illustrated in earlier sections, this interest in the future of the P&P industry did not suddenly occur in 1969. In 1967 the Minister for Industry had initiated a committee called “The State and Forest Industries’ Co-operative Group” (Statens och Skogsnäringarnas Samarbetsgrupp) which was given the responsibility of correlating all basic data available concerning forestry and the future of the forest industry (DS I 1972:1). Their report was published in 1972.

The background to the formation of this committee were the different views held by different interest groups on the reasons for the declining profitability of the P&P industry. Compared to other industries in Sweden the P&P industry was less profitable and profit levels had been declining since the 1950’s. Except for two good years, 1964-65, return on investment had been below three per cent in the 1960’s (Svensk Skogsin industri i Omvandling 1971:160). Two explanations for this decline were given. The first, supported by the industry, suggested that the decline was temporary and caused by the expansion of the North American P&P industry which seriously affected price levels in Western Europe. The second explanation was that long-term structural changes in the business environment underlined the need for radical change. According to this view the competitiveness of the Swedish P&P industry was threatened due to a number of factors of which competition both from North America and new pulp and paper producing countries as well as substitutes such as plastics, were the most important (DS I 1972:2).

The committee stated in their report that they could not support any of the two views. However three general suggestions were made. The first was that the industry’s main problems were to be found in the cost structure prevailing in the north of Sweden. Secondly, it was suggested that the problems could be successfully challenged if the institutional framework, i.e. legislation and economic policy could
offer some support in the future. The third suggestion was that:

"Investment plans are co-ordinated between forest industry companies in order to avoid any capital losses which could be caused by miscalculations regarding raw material supplies." (Ds I 1972:26).

This last suggestion was repeated in several other articles and speeches during the period. One way of putting this idea into practice were the annual capacity surveys carried out in Sweden since the middle of the 1960’s. In these surveys the trade association collected information from the companies regarding their future investment plans. The survey of 1973, covering the period 1973-1978, resulted in the optimism from 1972 cooling down and several major investments being postponed (Svensk Papperstidning 1973:9).

A phenomenon related to the idea of extended planning occurred in 1969. At that time company management on both sides of the Atlantic had come to the same conclusions about the market situation and ordered temporary cut backs. Surprisingly, it was the first time that these curtailments were not agreed. Mossberg (1969) argued that it was an action originating from the instinct of self-preservation. Other industry representatives saw this spontaneous downtime as the effect of an increasing input of statistics and data.

"The statistical improvement shown concerning market trends, production capacities etc., has resulted in similar conceptions of the present and future market situation, both in the long and short term perspective." (Carlgren, 1971:5)

But even if opinions about the effects of the increasing flow of information varied, no one disagreed with Lars Sjunnesson when, in 1974, he pleaded for more up to date information about the expansion plans of various countries to avoid periods of excess capacity.

"It should be of joint interest to the paper industry around the world - and not least here in Western Europe - to have as good and as up-to-date information as possible on expansion plans in the various countries and regions in order to avoid excess capacities through a loop-sided concentration to the one or the other paper sector." (Sjunnesson 1974:580)
This belief in the infallibility of planning and statistics, can be illustrated by an inquiry that was the result of a bill submitted to the Swedish Parliament, in which closer co-operation within the industry was proposed as the way to increase profitability. Commenting on this, the CEO of the trade association, Ewert Landberg, presented a memorandum to the Joint Committee of the Forest industries (SISU) in which he recommended an increased level of co-operation on major investments, wood supply, and sales. The committee saw the need for more data and commissioned a further investigation.

The investigation was to be carried out in two steps. The first consisted of an analysis of structural changes of the forest industries since 1950 (SCPF, Annual Report 1967). The second step, the precise terms of which were to be decided later, was a review of the strategic issues considered as vital for the future development of the forest industry. The results were to be used as a basis for decisions to be taken regarding co-operative efforts. (Landberg, 1990:111, SCF Press announcement 1967 April 14). The first part was presented in 1972 (Svensk Skogsindustri i Omvandling, 1971). Then conditions had changed and the objectives of the second part of the investigation were outdated. Soon urgent problems, such as the oil crisis and the acute wood shortage, also overshadowed the aims of the investigation (Wohlfart, 1996).

The number of investigations did not decrease. In 1976 the trade magazine Skogen (1976:321) reviewed and summarised those going on. The survey only included those initiated by the government and the result was that seven investigations concerning regional and structural planning, environmental issues, wood supply and demand, future trends in the industry etc. were noted. Many subjects were the same as those presented in the survey made by SCPF in 1969. The industry continued to be of great concern to the public during the last part of the period, partly as a consequence of its low profitability, and the number of official reports and investigations therefore remained at a high level. Several of these are discussed in detail below.

162 A total of 845 pages in two volumes.
Information strategies

An important reason for all these investigations seems to have been growing public concern and interest in the forest industry already observed during the period 1959-1968. Besides taking an active part in investigations, the trade association's informational and public relations efforts were directed mainly towards the comparison and competition between paper and plastics. The need to spread information about the environmental advantages of using paper bags was seen as vital to the survival of this particular product. As a result of activities in this area an information group was formed in 1971, whose task was to inform the public about the environmental advantages offered by paper products. This committee carried out a number of activities directed towards the public, the media and decision makers during the period 1971 to 1975. In 1975 these responsibilities were taken over by the information function of the trade association (SCPF Annual Report, 1975:3).

Paper contra plastics was not the only subject where more public relational activities were needed in 1971. The EEC negotiations and the increasing environmental debate also demanded an increase in information which resulted in the organisational forms of the association being the subject of examination (SCPF, 1971 September 7). As a consequence additional personnel were recruited and a database for the whole industry was created. Most of the ideas on how to improve industry image were formulated during a conference in 1971, attended by all managers responsible for public relations within the industry.

"At this conference with the public relational executives from all the different companies, the need was stressed for the trade and industry associations to establish fact files in the form of easily accessible information regarding different aspects of forest industry activities - principally in the above mentioned areas -(the role of the industry in Swedish society, trade issues, international market conditions and the environmental situation), which could provide basic factual material for use in P.R. activities when presenting or introducing their own companies to customers and other interested parties." (SCPF, 1971 September 7)
In 1972 a two year plan was launched and, as a starting point for this programme an awareness and attitude survey was carried out in Sweden in 1972. Since 1973 would be an important year for the P&P industry, with general elections, new central wage negotiations, the continuing debate concerning environmental issues as well as the concern about forestry management - a subject in which a public report on forestry was to be presented. All these factors made the information manager of the trade association to advise top executives to designate 1973 the year of "intensified information" (Svensk Papperstidning 1973:1 page 1ff).

The information programme initiated in 1972 was implemented during the remaining years of the 1970’s. Attitude surveys were carried out in 1973 and 1976 and following the results of these many more information activities were started. The surveys revealed that the negative public attitude to the P&P industry had diminished between 1973 and 1976. The percentage of those questioned who were negative to the P&P industry decreased from 91% to 73% during this time. However, public opinion evidently felt that further efforts to safeguard the environment were necessary (Svensk Papperstidning 1976:15).

In 1979 information was focused on the referendum concerning the future of nuclear power after 1980. The industry was threatened by increasing energy prices, and by the societal groups who argued that wood could replace nuclear power (Svensk Papperstidning, 1979:10). The outcome of the referendum was that the closure of nuclear power stations would be carried out in an unspecified future, which was positive from the industry's point of view, and immediate fears were therefore removed. Following the referendum there was a change in information strategy, which was motivated as follows in a memorandum to the board of the trade association.

"We have good tidings to convey, but we cannot get our message across to the broad opinion which controls the actions of our decision makers.” (SCPF, 1980 September 3)

In this memorandum was suggested a new theme of information. The objective of the campaign - "The Green Gold of Sweden" (Sveriges Gröna Guld) was to increase public awareness of the Swedish forest industries and to stress the importance of the forest industry to the Swedish economy. Advertisements in the press and the publishing of a
newsletter distributed to decision-makers were two of the most important activities of the campaign. This campaign signalled the start of an increasingly active information policy.

"During recent years, we in SCPF have increased our efforts to create and establish an overall policy regarding questions of mutual interest within the industry. We have also endeavoured to harmonise external information concerning our industry's opinions and points of view." (Wergens, 1980:1)

The campaign of 1981 was repeated in 1982. The theme of the campaign remained the same (SCA-tidningen, June 1982), but in 1982 the campaign was given increased credibility by the publishing of a policy document. This, - "The forest industry - a cornerstone of the Swedish economy" - was an attempt to communicate the message from the industry in a concise and easily understood way (Skogsindustrin - en hörnsten i svensk ekonomi, 1982). The chairman of the board of SCPF summarised the document in a speech given at the annual meeting in 1982. This summary, no doubt indicates the feeling of distrust within the industry about current economic policy.

"Industries and companies can only remain vital and healthy when they are in close touch with their markets, technological developments, and if they are aware of their own position and situation. Structures and product ranges can only be determined from existing realities. The company's commercial experience, specialisation, and ability to judge risk factors cannot be replaced by bureaucratic or political decisions. Only those who are ignorant of the real business world could possibly believe in any form of bureaucratic control. However, we within the industry sometimes feel that political statements, policies and decisions are not based on any actual reality." (Landqvist, 1982:3)163

The "live and let live" policy in practice
In the end of the 1960’s optimism re-emerged about the future of free

trade in Western Europe as new applications to join the EEC were made from EFTA countries. This made Sweden initiate negotiations concerning its future relationship with the EEC countries. However, in 1971 the Swedish Government declared that Sweden would not apply for membership, but as Great Britain and Denmark joined the EEC in the following years, Sweden was forced to negotiate an agreement with the enlarged EEC. In 1971-1973, the terms of this agreement were probably the most important issue within the industry. In 1971 the terms presented by the EEC to the Swedish negotiators were given. The reaction from the SCPF was:

"They (the EEC) have added one protectionist barrier after another. The content of the agreement, in summary, is an extremely long transitional period (for the phasing out of tariffs and duties) together with quantity limitations and quotas. Besides this there is a further possibility to create new barriers with reference to the future development of prices and volumes of pulp and paper, and finally, to top it all, a clear deviation from the statements made by the governments of the EEC and EFTA in which they confirmed that they would not create new trade barriers according to proposals submitted for partial reintroduction of tariffs and duties in England, Denmark and Norway." (SCPF board meeting 1971 November 23).

These negative responses were the reaction to the three demands made by the EEC. The first was that the new EEC countries, Denmark and Great Britain, must adjust their tariffs to the EEC level. As Denmark and Great Britain applied low tariffs in their trade with Sweden, this would increase protectionist barriers in the short term. The second was the proposal of import quotas expressed in tons. If the ceilings of the quotas were exceeded, higher tariffs were to be applied and if the levels were set too low they would probably often be exceeded. Consequently, the EEC, threatened to implement higher tariffs in all future negotiations, and although quotas were promised to be increased every year these increases could be postponed if market demand was sluggish in the EEC. The third point was the length of the transitional period during which tariffs would be reduced. For the majority of the

164 As we now know Norway did not join the EEC at this time.
industry it would take five years to reach a free trade situation, but for some vital products, such as paper, the EEC mandate demanded a twelve year transitional period. The reason for this formulation was obviously the fear of the "scissors policy" from the EEC.

Comments from industry experts were similar to the reaction from the SCPF: "Our position on the British and Danish markets is seriously threatened, at the same time as these countries become open to the continental paper industry.", Karl-Erik Önnesjö, CEO of Holmen.165 "This (transitional period of tariff reductions), naturally, has an inhibitive effect on the Swedish paper industry's investment plans - which is precisely what our continental competitors want.", Erik Sundblad CEO of STORA. "It is no secret that consideration is being given, both in Sweden and Finland, to plans for increased overseas relocation of pulp and paper production." Fagerlind, Executive officer of MoDo (Svensk Pappers-tidning 1971:23).

In 1972 the trade association published an information brochure in which the proposed conditions presented by the EEC and the possible effects such terms could have on the future standard of living in Sweden were discussed. There was a basic underlying and pervasive uncertainty about the future.

"The uncertainty concerning future export prospects to the EEC has resulted in investments in process industries being postponed. Leading to a decreasing rate of technological development and innovation, and - in the long-term perspective - a subsequent reduction in competitiveness and profitability compared to other export industries." (Svensk Papperstidning 1972:9 page 357)

In the final agreement, signed in 1972, the transitional period was eleven years, which meant that in 1984 there would be free trade between Sweden and the EEC. The import quotas were, however, still considered a major obstacle.166

"The agreement concerning the paper sector is generally rather vague

166 Only the basic principles of this extensive agreement are given here.
and its consequences difficult to foresee. Important decisions are dependent upon their implementation in practice, and their effects only able to be judged on a year to year basis. This, naturally, results in a great deal of uncertainty concerning the whole of the transitional period. Moreover, our exports will be subject to a complicated administrative procedure, which in itself will be inhibitative, in contrast to the free trade situation within the EEC.” (Önnesjö, 1972:3)
In 1973 intensive efforts were made to develop the required administrative routines to support the new agreement and, even if the terms could have been more favourable, the fact that an agreement had finally been concluded was a step in the right direction for the Swedish P&P industry. As 1974 was a year of extreme demand growth within the EEC the upper limits set for quotas were reached this year. The high volumes of imported paper from Sweden went unnoticed, because there was no demand for enforcement of the higher tariffs.

167 The following text was also included in the table in 1979: Tariffs for Swedish paper and board in the EEC, United Kingdom and Denmark 1973-1984. The table refers to paper/board with a 12% basic duty as of January 1st, 1972. Under the GATT agreement of 1979, the first step is to be taken from January 1st, 1980, in a gradual reduction of the industrial tariffs. This reduction will be in eight stages and will, for the majority of types of paper and board in the EEC, lead to a reduction from 12% to 9% in 1987. This means that the EEC’s external tariff barrier in 1980 is 11.6%. The tariff barrier between Sweden and the EEC will be entirely abolished through this agreement on January 1st, 1984.
determined in the agreement. The overhanging threat was still however apparent, and industry experts in Sweden felt extremely cautious about major investments in paper production.

"We must be aware that a rapid change in production from pulp to paper in Sweden will result in counter-measures being taken - the worst case being the possible re-introduction of tariff barriers. Therefore, if we continue to increase the conversion of pulp to paper in Sweden this must be done so that we maintain our traditional commitments regarding the supply of pulp to the Western European paper industry." (Rydin, 1974)\textsuperscript{168}

**Attempts to create a co-operative climate**

During the recession of 1975 and 1976 paper makers in the EEC attempted to reduce the level of imports from the Nordic countries and North America. In 1975 the situation became more complicated since the EEC blamed Swedish restrictions on shoe imports for delaying the automatic increases agreed upon in quotas for paper (Svensk Papperstidning, 1976:1). This tactic continued during 1976-78 but as the recession ended the main argument for these delays could not be supported as demand grew in the EEC countries.

In 1978 the EEC Commission concluded that there was no reason to further delay the adjustment of quotas for 1979. More importantly, the EEC Commission came to a decision about the future of the agreement, declaring that the existing agreement concerning free trade in paper products was to be followed, and that free trade status for Sweden should be given by 1984.

"The statement removes any concerns which in recent years have been apparent regarding the long-term intentions underlying the repeated measures to maintain the status quo and other restrictive practices. These have been seen by both Swedish and many other companies as giving the impression of wanting to obstruct a smooth transition to free trade status in 1984." (SCPF Annual Report, 1978:6)

Steps taken to improve relationships with pulp and paper producers in

the EEC were pursued during the period. The foundation of the EPI (European Paper Institute) was one result of these initiatives. The EPI was intended to function as a Pan-European association for the whole P&P industry; collecting and supplying statistics concerning capacity increases, production levels, deliveries, inventories, as well as monitoring the overall market situation. Expectations that the EPI would become a problem solver and mediator between conflicting European interests were high.

"The EPI is expected to become an important forum for discussions between industries, to pave the way for a balanced expansion of the paper industry in Western Europe." (SCPF Annual Report, 1979:6)

The trend towards industrial consensus continued during the following years. In a speech given in 1980, Bo Wergens the CEO of SCPF stated his opinion that increasing contacts should be made with the EEC industries, partly to facilitate the deregulation of trade barriers but mostly to meet the competition from North America.

"The EPI should also be considered as a response to the increasing awareness in the EEC that the Scandinavian and West European industries not only complement, but are dependent upon each other. The greatest competition during the 1980's will probably come from North America. It can therefore be of great value to increase our contacts with EEC industries, which in many respects share our competitive determinants, for instance the high price levels of wood." (Wergens, 1980:5).

A similar argument was given by Erik Sundblad (1980) who argued that "we have to behave as good Europeans" and therefore must not give any cause for uncertainty to our colleagues and customers within the EEC countries. Sundblad's statement was motivated by the newly published plans for several new paper machines in the Nordic countries. He considered that the companies investing in these new specialised printing and writing paper machines had been caught in a traditional investment pattern.

"The following argument is often voiced: "We must invest as soon as possible to increase production capacity in product X or Y in order to
be the first supplier on the market." The risk of doing this is excess production capacity and poor profitability. It is very seldom prudent to start in these "races" with many competitors - even if you are one of the first ones to start. Hardly ever can you succeed in discouraging others from joining the race.... A good example of this are the numerous writing paper machines planned at the present time." (Sundblad E. 1980:5)

Any attempts at co-operation were threatened, not only by plans for large scale investments in the Nordic countries, but also by the recession of 1975/76 which fuelled protectionist policies in subsequent years. Consequently the EPI did not function as it was intended. The relationship between Nordic pulp and paper producers and the EEC industry was further strained when the EEC Commission accused producers of bleached sulphate pulp of price fixing, which was in clear violation of the Rome Treaty of 1957. Efforts towards increased co-operation continued and in 1981 SCPF arranged a management symposium, - "Sweden in Western Europe - co-operation instead of confrontation". The aim of uniting Europe against the apparent threat from North America was the obvious reason for this symposium (Svensk Papperstidning, 1981:7). In one of the speeches delivered, the paradox of competition and co-operation at the same time was highlighted. The speaker169 argued that there could possibly be a solution.

"The answer is that we must meet and know each other very well, and that we must talk about market developments, and that we must know of each others plans. The newly formed EPI is an important, and an all-out important organization.....During the last few years we have been seeing very much of each other, the industry in the common market (the EEC) and the Scandinavians. We have come to know each other intimately and on first-name basis. Already this has helped enormously." (SCPF, 1981 May 7:1)

The emerging shortage of wood

During the years 1966-68, no problem in meeting the demand for wood was seen. As described above, the period 1967-1968 was

169 A copy of the speech was found in the trade associations' archives. The author was, however, not mentioned.
characterised by production curtailments, and although demand grew in 1968-1969 there was still no shortage of wood. Reports published in 1968 and 1969 (SOU 1968:9; Skogshögskolan,170 AVB 1969) indicated that annual growth was higher than fellings, and that the Swedish growing stock of wood was about 50% greater in 1964-1968 compared to the 1920’s.

A further indication of the high availability of wood was that the export of wood increased to Finland and especially to Norway during the period 1968-69. In 1969 when the forest workers’ union presented their report on the future of the P&P industry in Sweden, the supply of wood was generally considered to be the least important limit for future expansion (TUA, 1969). The report concluded that, given the most optimistic scenario, the regrowth of the forest stock would allow an annual production increase of 4% throughout the industry. The report also forecasted a growth in demand for paper products of only 0.5-1.5% annually. The obvious conclusion was thus that the wood supply situation in Sweden was not the limiting factor constraining the expansion of the P&P industry as was generally believed (TUA 1969:14). In 1969 a Swedish governmental report "Västsvenska skogsin industriutredningen" was also published on which SCPF commented as follows:

"The commission has presented a report which gives an optimistic view of the expansion possibilities for the forest industry in Southern Sweden." (SCPF Annual Report 1969:29)

In this report, regrowth was estimated to be twice as high as fellings in the south of Sweden. The potential for volume expansion was therefore extremely good in this region. Careful planning and management of future investment sites was considered as very important, mainly for environmental reasons. The imbalance between the north and south of Sweden regarding the growing stock of wood was still an ongoing source of discussion. In 1970 a number of companies in the north of Sweden joined forces and proposed an ambitious plan to increase forest growth in the north of Sweden. Based on the latest research findings, (Skogshögskolan, AVB 1969), the companies concluded that within five years (i.e. in 1975), the

170 The Swedish University of Agricultural Sciences, Faculty of Forestry.
industrial demand for wood would be higher than the annual growth in these parts of the country. In order to reach a better balance between supply and demand, the companies proposed the implementation of an intensive forestry programme which included fertilisation, ditching\textsuperscript{171} and the clearing of land. Furthermore this projected programme would create 4000 new jobs (Svensk Papperstidning 1970:9). For the companies in the North there were few options available if they wanted to maintain their market share. The alternatives were; transportation of wood from the south of Sweden, expansion of production facilities in the south of Sweden, or expansion abroad, i.e., the ideas of the 1950’s and 1960’s were still alive.

"In order to defend our market position - which we will - we must go to where the raw material is available - i.e. leave our traditional base in Central Sweden. This is why we are establishing a paper mill in Nova Scotia, and taking part in the extension of Hylte Bruk." (Sundblad E. 1970b)

The proposed programme to increase forest growth indicated that there was a renewed concern for raw material supply at the end of the 1960’s and in the beginning of the 1970’s.

"As a result of the great increase in the demand for wood from the forest industry which took place during the economic up-swing of the late 1960’s, interest in the long and short term supply availability of wood has again been renewed." (Svensk skogsindustri i omvandling, 1971:20)

An apparent wood shortage

In 1971 the report of yet another governmental inquiry focusing on the future of the forest industry in the south of Sweden, was published (SOU 1971:85). According to this report the previously predicted oversupply of wood in the south of Sweden no longer existed, since surplus wood would no longer be available should the industry carry out its investment plans. In this case the demand for wood could increase by some 20-25\%, and a wood shortage emerge before 1980. Mossberg (1972) and Edström (1970) were two of the experts that

\textsuperscript{171} Ditching is used to drain water-logged forest land and bogs.
gave warnings about this possible threat.

"To summarise, it can be concluded that, within the foreseeable future, the demand for pulp and paper will increase dramatically. The most acute and pressing question for the forest industry will not be that of how to sell or market its output, but rather how to obtain the raw material supply in order to satisfy the growing demand for paper." (Mossberg, SCA tidningen, January 1972)

Opinions of industry experts had therefore changed. They now believed that demand would continue to grow and consequently ambitious plans were made for future investments in new capacity, which, if implemented would increase the demand for wood (cf Svensk Papperstidning, 1971:9, 18). In addition to this expected increase in the demand for wood, an increasing awareness of the uneven distribution of maturity in the growing stock of wood made experts predict a wood shortage within ten to fifteen years. As a result of this the idea to increase fellings in the next few years was born. One suggestion was that if fellings were allowed to exceed the annual growth of wood the old parts of the forests would be renewed, giving a profit and at the same time allowing a restructuring of the growing stock. In a speech delivered in 1971, Per Sköld considered the idea.

"There is, perhaps, a reasonable argument for a deliberate overcutting for some years - i.e. during a period of, say, 20 years allow fellings to reach a comparatively high level until raw material stock prices have been reduced to a lower - and probably more realistic - level, and then continue to reduce fellings or not, depending on the then current situation." (Sköld, 1971: 289)

In 1973 a commission reviewing the forest policy presented their final report. At that time the debate on how best to use the wood resources of the country had been going on for about two years (cf Wohlin, 1970). In their final report there was a majority for increased fellings, as described by Sköld above, which should be allowed during a period of 15-20 years. The background of this was the predicted growth in

172 It was first presented in Skogshögskolans beräkning AVB 1969 in the form of alternative D.
demand in Western Europe and the uneven age of the forest stock. Increased fellings of old trees would contribute to a more even age distribution which was the long-term objective (Svensk Papperstidning 1973:5).

The commission also predicted that fellings would decrease after a period of 15-20 years, which would be about the same time as old pulp mills and paper machines would have to be replaced. With the implementation of this projected strategy no production facilities (and thus capital) would be wasted. All the members of the committee agreed that a long-term perspective was needed for the forest industry. They also agreed on the need for revised legislation although a small majority of the members argued for more governmental control and financial incentives to guide and direct forest management in the future. The conclusions given in the report were sharply criticised. This criticism is reflected in the following excerpt from a trade magazine in 1973.

"Those (opposing the suggestions) who constitute an overwhelming majority within forestry and the forest industries are of the opinion that they cannot be held responsible for the short term depletion of our resources so that following generations of both forest owners and industrialists - in perhaps as soon as two or three decades - can be faced with a situation where the invaluable capital base has been exhausted, and total fellings have to be strictly limited.” (Svensk Papperstidning 1973:6 page 200)

Responding to the debate the Minister of Agriculture decided to form yet another commission (1973 års Skogsutredning) to review the future policy of forestry in Sweden. This new commission did not, however, come up with any new solutions to the problem, and 1974 was a year in which the increase in the supply of wood was seen as the most urgent problem.

"During the first three quarters, paper mills in almost all markets had great difficulties to find fibres for their production and a few of them

173 When illustrating the uneven age distribution in the forests, some saw the graph as a "trough" (svacka) for underrepresented age groups and some discussed the overrepresented groups as a "bulge" (puckel).
had to take some downtime due to lack of pulp." (Sjunnesson, 1974: 667)

Focusing on "the bottle neck problem" of wood supply Sjunnesson defined the way forward for the Swedish P&P industry:

"For us in Sweden it is a question of how best to utilize one of the most important natural assets of our country. The ambition for higher added values to our basic products is natural within the framework set by consumption and market developments.....Our resources are limited not only seen in relation to world requirements, but also in the West European context, but we will try to make as good use of them as possible" (Sjunnesson, 1974:580)

**How to overcome the acute shortage of wood**

The industry’s response to the situation was prompt. In the autumn of 1973 a group of companies planned increased forest utilisation. The result was two major projects named "Whole Tree Utilisation" (Helträdsutnyttjande) and the "T-pulp project" (T-massaprojektet) respectively. The idea was to start using the whole tree in the production process (including the stump, top and branches), so that the yield of wood would become as high as possible. The second project aimed to develop and increase the use of the thermo-mechanical pulping process (Svensk Papperstidning 1974:17). The two research projects represented a major effort to improve the wood balance but were not the only measures taken. A major information campaign was initiated to improve the negative attitude of the public regarding environmental issues and to change societal priorities. Furthermore, investment co-operation between companies was started in 1974. The agreement between Södra and Holmen is an example of this tendency (which is often quoted). Following this agreement, Holmen did not build a pulp mill, for which they already been given the necessary permits, in exchange for Södra's promise not to invest in newsprint production. Holmen's pulp requirements would be supplied by Södra, who were allowed to expand their pulp production. A consequence of this agreement was that the forests in the south of Sweden were utilised more efficiently (Press announcement, 1974 November
In 1974, which was a year of extreme demand, production volumes increased substantially, and even if a temporary set back was foreseen in 1975, forecasts were very optimistic about future demand growth (cf SCA tidningen, November 1974; Svensk Papperstidning, 1974:18). In view of the large number of new investment projects in combination with the debate about the consequences of increasing environmental considerations in forestry, the focus on the supply side is understandable.

The intensive debate about forestry methods that had emerged at the end of the 1960’s continued into the 1970’s. The use of chemical herbicides and the clearcutting of large areas were the two issues causing most concern. In 1971 the use of herbicides was forbidden and attempts were made to regulate clearcutting. The overall view of the P&P industry was that many of these accusations were wrong and exaggerated (cf Hagner, 1972).

"Who is now pictured as the ruthless marauder, blinded by greed and immune to the natural beauty of the environment? Yes, believe it or not, it is the Swedish forester, he who throughout many decades has regarded himself as the quiet, stable, prudent and careful sower; the nature loving cultivator who with love and solicitude cares for his plants and his trees for the benefit of future generations, both in the spiritual and the practical sense. One must admit that it must feel very difficult for them to suddenly be confronted with the reality of a hard and unremitting world!" (Lyberg, 1973:150)

Two opinions were in direct contrast to the subject of forestry. The environmental movement held the view that modern forestry (industrial forestry) impoverished wild-life in the forests, whereas the industry maintained that modern methods ensured both animal habitats and the long-term survival of the forests (Hellström and Reunala, 1995; SCA Annual Report, 1972:19). This divergence was obviously accentuated since there was an acute shortage of wood in 1973-1974.

In 1975 a further step was taken to reduce the bottle neck in wood supply. After two years of informal discussions the pulp and paper

174 The agreement also included other product areas which were dealt with in the same way as the ones reported above.
companies signed a voluntary agreement in which they established groups to survey the market for wood. These groups were to collect data about market trends and to suggest more efficient use of wood resources. The agreement further stated that the signatories were not to increase their use of wood above the levels established in 1973 and 1974 until January 1, 1978 (Svensk Papperstidning, 1975:15). The agreement was seen as a very good co-operative initiative, the kind of initiative that had become a necessity in the prevailing situation.

The concentration on the production of more value added products was still considered to be the best solution for the future. In a speech in which the wood shortage and measures needed was the dominating theme, Nils Landqvist concluded:

"When, in future, the availability of raw material begins to increase - partly because of long-term forestry policies, the scope and possibility for further increases in production volumes can be considered. In the meantime, what development potential can the forest industry foresee? The answer to this question is always the same: an increase in added value. By this we mean the increased usage of pulp for paper and cardboard within Sweden. “ (Landqvist, 1975:224)

The overcoming of the bottle neck
The optimism about future growth in demand felt in 1974 continued in the beginning of 1975. In all annual reports reviewed, the slowing down in international demand was seen as temporary and long-term optimism prevailed. Matts Carlgren's comment in MoDo's annual report of 1975 can be taken as one example of this long-term optimism.

"The forest industry is typically cyclical. MoDo, together with many other Swedish forest industry companies, can, this year, in spite of the general recession, show a return on capital which compares well with other industrial sectors. Faith in the future is obvious, even though earlier forecasts regarding future paper consumption have been adjusted downwards...The industry can look forward to good times during the next decades. You don't have to be an incorrigible optimist
to come to this conclusion.” (Carlgren, MoDo Annual Report, 1975:1)

Carlgren continued by reviewing the large investments planned by MoDo. His comments followed the same pattern as the comments of many CEOs at the time. This investment programme reflected a belief in future demand growth and increasing Swedish competitiveness.

During 1975 the demand for pulp and paper collapsed. A conclusion drawn at the end of the year was that the down-turn had probably been taking place since 1974 but that the decrease in demand was hidden by purchasers inventories (Svensk Papperstidning 1975:12). The result was a sharp decrease in demand.

”There was a brutal change from the positive demand situation of the past few years, to the paralysed market this year.” (Svensk Papperstidning, 1975:15 page 531)

Karl Erik Önnesjö illustrated the noticeable change of tone in speeches given during 1975. In a speech in April 1975, he expressed surprise that the down-turn in demand was so moderate. In a speech in October entitled "a tenacious slump" (Segdragen konjunktursvacka) he predicted a long and deep recession ( Önnesjö, 1975 April 24-28 and 1975 October 31). The situation became worse and the inventories of pulp and paper held by the producers grew.\textsuperscript{175} Hope were increasingly growing that the large volumes of pulp could be sold at improved price levels in 1976.

"Swedish exports can slowly start to increase, but production must be restrained. Without causing any over-supply on the market, warehouses, loading bays and football pitches can gradually be emptied of their treasures - hopefully when prices are increasing!"

\textsuperscript{175} As described in section 4.5.1 the increased inventories were a consequence of governmental policy at the time, which intended to reduce the effects of the recession. According to some sources the idea to even out down-turns in demand by increasing inventories was first used by Ncb in 1971. The idea proved successful and was thus developed into a full scale experiment (Wergens, 1995; cf Ncb Annual Report, 1972)
In 1976 the inventories of market pulp reached such high levels that it was impossible to let them continue to increase (Svensk Papperstidning, 1975:15). Consequently, large quantities were sold at low prices. However, the opinion in the industry was still that the decrease in demand was temporary and that a long-term shortage of wood was approaching. In 1976 further attempts were made to achieve a long-term stability in the wood market. At this time a new non-profit making company was formed with the aim of importing wood to Sweden (The Pulp Industry’s Wood Import Limited). Eleven of the largest P&P producers in Sweden became shareholders in the company which was operated by the trade association under the chairmanship of Erik Sundblad, CEO of STORA (Svensk Papperstidning, 1976:10). A five year contract to buy wood from the US was soon concluded, which increased the supply of pulp wood in Sweden by 2% (Svensk Papperstidning 1976:12).

In 1976 the voluntary agreement to restrict wood consumption was prolonged. At the same time as the agreement was made, the government amended the building act (136a Byggnadslagen) making it compulsory to apply for a permit even when rebuilding an existing mill. When announcing the passing of this amendment a more restrictive policy when granting permits was indicated.

"The Government considers that a great deal of restraint must be shown with regard to the granting of licences for the expansion of forest industry production and the increase of wood usage. Whilst awaiting the results of the forestry inquiry, and the Government's statement of its economic policy, permission will only be granted for increases if extremely good reasons can be shown for these, or if they will enable a better usage of existing capacity. The forest industry must concentrate on adding value to the basic product. It can, by doing this, contribute to our economic development and create more employment opportunities by using presently available resources.” (Press announcement from the Ministry of Housing and Physical Planning, SCPF, Annual Report 1976).

177 Bostadsdepartementet
At this time, the voluntary agreement and the change in the law appeared to be two measures having the same effect (SCPF Annual Report, 1976). The industry opposed the change in legislation, claiming that the industry could overcome the wood shortage itself through internal agreements. However legislation was seen as necessary by the government and the union. Representatives from the union argued that the industry announced agreements about restricting wood consumption at the same time as there were 25 applications for capacity expansion by the same companies (SIA tidningen, 1976:9).

As demand continued to be low and inventories difficult to dispose of, interest in new investments diminished and thus the demand for wood was reduced. In 1977 capacity utilisation of the P&P industry sank below 70%, at the same time as pulp stocks were almost four times above their normal levels (Wergens, 1977:84; SCPF Annual Report, 1978). Erik Sundblad commented on this situation in 1977.

"We people in the pulp and paper industry are lucky - in one respect. Our lives are not dull. Boredom is not our problem. The ups and downs give us ample amounts of thrill and excitement. Only three years ago, our main problem was how to get a sufficient supply of fiber in the future. We looked into distant countries, we were willing to invest, and we were anxious that we were going to face a shortage of pulp. Consulting firms were busy and many wild projects were seriously studied. When recession came in 1975 and 1976 most of us, including myself, were convinced that this was part of the usual pattern......But everything went wrong. The business cycle didn’t behave at all. Instead of an upturn we got into the worst recession we have had since the thirties. And there we are with our high stocks and an extremely difficult debt situation.” (Sundblad E. 1977:1-2)

Matts Carlgren, paraphrasing the expression about a bulge in the wood supply used the term bulg of disappointment (besvikelspuckel) to describe the atmosphere at this time (Carlgren, 1977). In 1978 several studies and projects initiated during the time of wood shortage were completed at the same time as the shortage of wood became less of a problem (cf Rydin, 1978). The results of the T-pulp project were
useful in the short term.\textsuperscript{178} Other findings were more difficult to implement in the short term. As far as the usage of stumps and other residues left after felling were concerned, the conclusion was that the quality of such fibres was low and the process rather expensive. In a longer perspective the use of residues and the results of research during this period were seen as giving new possibilities to the industry (Skogen, 1878:26ff; Svensk Papperstidning, 1978:1).

Andersson (1978) compared the project “The Whole Tree Usage” with technical developments in other countries during the same period. He found that many international observers were both impressed and surprised that the industry in a small country was able to initiate such an advanced and broad research programme. His explanation for the success of the project was its unique organisation, involving a wide variety and number of stakeholders, which combined information, experience and knowledge from many sources. Per Jerkeman (1980) evaluating the activities of the Swedish Forest Product Research Institute (STFI) in the 1970’s also concluded that large joint projects had been an invaluable organisational form in the 1970’s.

\textbf{The long-term supply of wood}

In 1978 the biggest event involving the supply and demand for wood was the results of the public inquiry on future forest policy. This inquiry was initiated in 1973, following the confused debate about uneven age distribution in the forests. The final report included three broad policies to secure the future supply of wood (SOU, 1978:6-7).

The first alternative was the retention of the status quo. The same methods as before were to be applied in future forestry, and fellings were estimated to be about 75 m\textsuperscript{3sk}\textsuperscript{179} annually during the next 100 years. This production level would allow a P&P industry of about the same size as the one in 1978. In the second alternative, fellings were estimated to reach to a total of 89 million m\textsuperscript{3sk} in the twenty first century, which would be achieved through intensified forestry, a

\textsuperscript{178} As mentioned before the T-pulp project focused on the development of pulp grades with a high yield (so called termo-mechanical pulp).

\textsuperscript{179} m\textsuperscript{3sk} or cubic metres solid volume over bark is a measurement used to estimate the direct usable parts of the forests. The measurement includes the complete tree with bark but not the stump (Hagner, SCA tidningen, January 1978)
tripled level of fertilisation, intensified ditching, and the planting of fast growing species. This alternative would allow a capacity increase in the P&P industry. The third alternative which was more environmentally friendly, excluded the use of ditching, fertilising and biocides, but would only result in an annual growth of 69 million m3sk in the 21st century. The composition of species in the forests would also change by using this alternative. The percentage of hardwoods, would, for instance, increase.

The report concluded that alternative number two was to be recommended, which would allow an expansion of the P&P industry, a conclusion that was applauded by industry experts (cf SCA tidningen, January 1978). In the following debate three diverse opinions can be seen. The environmental movement saw the investigation as representing only the views of the industry. They argued strongly that future forest policy should not only be based on what they called "the industrial perspective" (Svensk Papperstidning 1978:13). The Forest Owners' Association argued that alternative two of the investigation represented an acceptable future scenario. They identified a number of other problems, the most important being the taxation system and the laws concerning land acquisition.180 The P&P industry finally argued that alternative number two was the most acceptable but that it represented only a modest increase in industrial forestry.

"The strange thing is that alternative two was subject to a great deal of criticism from certain quarters as a new, and environmentally hostile plan, only designed to satisfy the profit expectations of a greedy major industry. This description has little truth in reality: the plan is rather unpretentious in comparison to our resources."
(Sjunnesson, 1978:2)

The industry experts also argued that the detailed administrative system introduced in the 1970’s must be changed and that laws which still restricted the restructuring of forest ownership also had to change.

---

180 The law was changed in 1965, making it possible for companies to acquire land from private owners. As a result a substantial increase in these acquisitions took place. The Forest Owners Associations argued that the new owners in many cases did not have efficient foresting in mind (Södra Annual Report, 1978).
According to the industry large forests were a prerequisite for efficient forestry methods (Svensk Papperstidning, 1978:13). The Forest Owners' Association and the trade association thus had divergent opinions concerning this issue.

The price of wood decreased by 20% in 1976-1978, but even so wood and other raw materials still were regarded as too expensive in Sweden compared to the US (cf Sjunnesson, 1978). The Forest Owners' Association presented a report in which it was argued that the prices of wood must increase in order to maintain the forest owners' profitability (Svensk Papperstidning, 1978:14). The gradual decrease in profitability was seen as the reason for the increasingly low level of fellings in privately owned forests.

"Some years earlier we were harvesting too much: now we are not harvesting enough. The discussion became more and more concerned with the reason why the private owners were not felling enough trees...." (Hamilton and Pettersson T. 1988:88)

The industry and the forest owners agreed that prevailing exchange rates, taxation levels, governmental administration and the short sighted forest policy were to blame for the high cost level.

**Figure 4.8. Industrial forestry**

*If the forest industry is to strengthen its international competetiveness, forest policy...*
How to increase the level of fellings?

In 1979-1982 the discussion about wood shortages slowly ebbed out. Instead, the level of fellings became the predominant issue. Various reports predicted increased annual forest growth but the industry was unable to take advantage of this due to the low level of fellings in the privately owned forests. In 1979 the government and the trade association both initiated investigations to study this problem. Both came to the conclusion that fellings from 1976 and onwards could have been 10 million m³ more than actual fellings (SOU 1981:81). The low level of supply was generally seen as reflecting a reluctance among private owners to increase fellings (SCPF Annual Report, 1981:9). The taxation system, increasing labour costs, new categories of owners (mainly non-resident owners), the increased demand for replanting, new environmental demands, and the recent financial setbacks experienced by the Forest Owner Association were just a few of the reasons given to explain the situation (Lundberg, 1980; Wergens, 1981).

However, there was also divergent opinions. Some argued that the estimations were wrong in the first place and that private owners had no real possibility to increase fellings. These arguments were mainly given by representatives of the private forest owners who concluded that the industry should adjust its capacity to match the growth in the forests. (Fahlgren, 1981; Andrén, 1981).  

In a speech in 1982 Nils Landqvist, the new chairman of SCPF, stressed the difference between the available wood and the wood that was profitable to fell. In his opinion forests were growing in accordance with all recent investigations, but due to the increase in marginal costs all the wood available was not being used. Consequently the import of wood must continue, or the capacity of the industry had to be reduced.

"We must ensure that we grow as many forests as possible in our country - but forests which are economically viable. In addition we

181 See SCA tidningen June 1981 for a summary of the debate.
will probably be forced to reduce the industry's total volume consumption.” (Landqvist, 1981:16 page 6)

Further threats to the efficient usage of the forests appeared during this period. The second oil crisis of 1979 and the referendum on the future of nuclear power in 1980 were both factors encouraging the use of wood as a substitute for oil energy sources in the future. This was strongly opposed by the industry, which argued that the refinement of wood into paper products would be more profitable to society (SCPF, Annual Report 1979:9).

In 1980 the conclusions of a public inquiry about future land usage in Sweden were presented, suggesting that the Building Act (Plan och bygglagen) should be used to regulate overall land usage of the country. The proposed changes identified the most important stakeholders but of those the forest industry's role was diminished and had this been accepted by the Swedish Parliament, the effects on future supplies of wood could be expected to be severe. In 1984, following intense lobbying by the forest industry the Government decided to postpone this proposal (SCPF, Annual Report 1982:8).

Future demand for pulp and paper on West European markets

The domestic debate about the wood supply also depended on the supply of pulp and paper to West European markets. In the 1950's the introduction of new technologies opened the possibility of producing pulp based on eucalyptus in the south of Europe and in South America. At the same time the opinion that the Nordic countries would not, in the long-term, be able to supply Western Europe with all the pulp and paper required, was wide-spread (cf TUA 1969:77), and as a result Swedish pulp and paper companies started to invest abroad in the 1960’s to secure their positions.

At the beginning of the period (1969-1971) new countries entering the industry were considered to be a threat. However, as demand prognoses for paper became more optimistic eucalyptus-based pulp (hardwood pulp) became seen as a solution. Two scenarios developed; in the first the eucalyptus based production of pulp in the south of Europe and South America was expected to satisfy the increased demand for pulp and paper in those parts of the world. In the second scenario, pulp from these areas could be exported to the West European paper industry. Both scenarios could be favourable to the
Swedish industry. In the first, pulp produced and used in the south of Europe and South America would have to be combined with the long fibre qualities (softwood) produced in the Nordic countries in the production of paper, and thus a new market for Swedish pulp would emerge.

"Species of wood giving short fibre pulp mature sooner in a warm climate, and can be grown there more efficiently. As most of the end product is sold in these areas, it is reasonable that processing and conversion should also take place there, with locally produced short fibre pulp and long fibre coniferous pulp from Sweden and other countries." (Sundblad E. 1971:1532)

If the second scenario should become reality, West European pulp markets could partly be supplied by the new producers. In such a case Swedish industry was equipped to integrate the production of pulp into paper more efficiently, and accusations about Swedish industry applying the "scissors-policy" would disappear. (Rydin, 1974b) Both these scenarios emerged in the first half of the 1970's, a period in which demand for forest products was high.

The impact of new pulp producing countries was still considered as marginal in 1976. Rydin (1976) argued that infrastructural investments required in regions such as South America, the Soviet Union and Africa were too high to allow a competitive P&P industry to emerge in the near future. This view changed as demand decreased and costs increased in Sweden. Lars G. Sundblad (1979:4)\(^\text{182}\) describes the changes in wood prices as follows.

"Between 1955 and 1972 the cost of raw material (wood) was more or less stable within the Swedish forest industry. This, in fact, meant that prices, in real terms, had actually fallen during this period - the explanation of this being rationalisation. From 1972 to 1975 prices increased by about 150%. In comparison we can look at chemical pulp prices which in 1974 were 415 dollars/ton for bleached sulphate pulp, and at the end of last year had fallen to 410 dollars/ton. In the last four years prices have, as we know, been much lower than this, causing problems and financial losses for many companies."

\(^{182}\)Lars G. Sundblad, CEO of Iggesund 1956-1985.
This development is a reason for the domestic focus on cost levels towards the end of the period, which was further emphasised when comparing Swedish and international wood prices. In 1978 the Boston Consulting Group analysed Swedish industry against the background of the severe problems the Swedish economy faced at the end of the 1970’s and the growing awareness that these problems were due to structural changes.

"General opinion has grown much stronger during the last few years towards the conclusion that the industry's problems in Sweden are structural and cannot be solved by government economic policies or by holding down increases in labour costs." (BCG, October 1978)

When reviewing traditional industries the P&P industry was obviously one of the most important. The conclusions drawn by the BCG report were disappointing. The new pulp producing countries together with continuous capacity increases in the US were forecasted to drive the Swedish suppliers out of business in the future. The argument from Erik Sundblad and Bo Rydin, that Swedish long fibre pulp qualities were needed in combination with the increasing world-wide production of short fibre pulp, was rejected:

"The higher proportion of long fibre wood in Swedish forests used to provide an advantage. Modern pulp and paper technology, however, has reduced or eliminated the need for long fibres in most applications" (BCG, October 1978:10)

Although the basic conclusion of the BCG report was that the Swedish P&P industry to a large extent was going to be driven out of business in the near future, some companies were expected to survive. The survivors would be companies specialising in products with a high yield, a well developed distribution network, supported by assets such as hydro-electric power stations and forests. Companies basing their

---

183 The prices of wood fluctuated during the period. 1953-1966 the increase was 39% (Svensk Skogsindustri i omvandling, 1971) and in the period 1976-1978 prices decreased by 20% The time period choosen, the geographic area, and the qualities in focus, obviously result in different interpretations.
business on chemical pulp and kraft papers were going to be the loosers. Thus, the optimism with which the newcomers from South America and Southern Europe were met in the beginning of the period, gradually changed to pessimism, reflecting the rate of increasing costs in Sweden (cf Wergens, 1979b).

**Competition with plastics**

Another factor to emerge during the 1960’s was the increasing use of plastics as a substitute for paper. At that time production costs for sacks and bags made of plastic were lower than those made from paper. An increasing use of plastics in product areas traditionally dominated by paper products was anticipated. The pessimistic forecast given in the forest workers union’s review of the future of the P&P industry was mainly due to the anticipated growth of plastics (TUA 1969:9ff).

"Plastics are, in many applications, a viable and potential competitive alternative, and can thus influence general price levels. This effect, presumably, will increase in future as intensified polymer research is being undertaken in all industrialised countries. Most of today's plastics were more or less unknown 20 years ago. The plastics industry of today is one of the most expansive, showing an annual growth rate of 15 - 20%.” (TUA, 1969:9)

The review predicted that newsprint and most magazine and office papers would not be subject to competition from plastics but that the rest of the Swedish P&P production would. The conclusion drawn from the report was that the growth of plastics combined with the shortage of wood would force pulp and paper companies to diversify their operations in order to ensure their survival.

During the period 1968-1973 many articles in trade magazines discussed the relationship between paper and plastics. In 1970 Marcus Wallenberg, the then acting chairman of the Annual Forest Week Conference (Skogsveckan), used most of his keynote speech to examine this. Although accepting that the growth of plastics could be expected, mainly in consumer packaging, Wallenberg stressed problems involved in forecasting and that technical development was unpredictable (Wallenberg M. 1970). Bäckhammars Bruk and
Vänerskog, two minor companies in the industry, focused on this relationship between paper and plastics when they organised a "marketing-seminar" in 1971. The general conclusions of the seminar were that even if the usage of plastic based products should increase, this would rather be the result of marketing efforts than any qualitative superiority and that an increased and more aggressive marketing of paper would be enough to attain an acceptable balance between paper and plastics in the future (Skogen, 1971:558). Other experts saw these new materials as worthy of extreme consideration and to them it was not a question of paper or plastics, it was a question of paper and plastics (cf Hindemark, 1969; Valeur, 1970; Carlgren, 1971).

"In future we will not be able to ask for or specify "pulp or plastic", but consider the inherent advantages of both materials, and combine these to give end products showing superior qualities. These compounds will be of advantage, not only to the consumer, but also to both the pulp and plastics industries." (Croon et al, 1973:37)

A popular theory at the time suggested that if any substitute gained 10% of the market it would then increase and gain a dominating share of that market. The reason for this development, it was argued, was that any new product that could take 10% of a market probably had technical or qualitative advantages compared to existing products. Furthermore after attaining 10% market share, ensuing economies of scale would accelerate new product viability both with regard to cost and quality. This had earlier been observed in the sack market and other markets were predicted to follow the same pattern (Wearn Bugge, 1995).

In the 1970's SCPF and related organisations initiated major marketing campaigns to increase the use of paper bags because competition from plastics had become intense. In 1973 and 1974 however the high demand for paper products together with the increase in oil prices were factors that made the problem of substitutes less critical. After that time competition between paper and plastics was only mentioned in passing. One of the exceptions occurred in 1976 when a study of differences in the environmental impact of plastic and paper bags was presented in Svensk Papperstidning:

"The reputation of plastics has recently become somewhat tarnished
following the attention given by the media to questions regarding environmental hazards and the depletion of natural resources. There are many documented cases of environmentally damaging plastic usage, which the public then associates with all plastics.” (Swan, 1976:12)\(^{184}\)

In this study it was concluded that the environmental effects of producing and using plastic bags were less than that of paper. This was difficult to prove, and in comments concerning the study, the role of plastics in areas dominated by paper products was therefore seen as negligible.

**Recycled paper a raw material for the future**

As the threat from plastics diminished the interest in recycled paper grew. As were many issues, the recycling of paper was not new to the industry. The first statistical notation is first seen in 1937, when 40,000 tons of paper were recycled, which means that less than one per cent of the total production of pulp was based on recycled paper. In 1947 new specifications for paper qualities encouraged the increased use of recycled paper (Landberg, 1990:126). In 1951 the use of recycled paper increased to 96,000 tons of which 42,000 tons were exported. In an article reviewing the situation it was concluded that:

”There cannot be any doubt that the use of waste paper will, in the long-term, play an important part as a resource in the production of paper products.” (Svensk Papperstidning, 1952:13 page 473)

In 1955 the trade association (SPF) established a committee (The Waste Paper Committee) who were to examine various aspects of the usage of this raw material. Increasing quality requirements for the final product and the lack of interest shown in recycling technology marginalised this development. Holmen, one of the biggest consumers, used 25,000 tons of recycled paper in their production of newsprint in the beginning of the 1950’s, but this was discontinued in the following years (Svensk Papperstidning, 1973:11). An indication

---

\(^{184}\) In this article, Göran Swan commented on the study made by professor Olle Lindström. The name of the study was ”Plastics and Energy” published by Rastbranschens Miljövårdsråd.
of this slow growth trend was that even if the volume of recycled paper used in the production of paper increased by 100% between 1951 and 1967, the production of paper had increased by 400% during the same period. Consequently, in the beginning of the 1960’s, recycled paper was still a product handled mainly by scrap-merchants. From the second half of the 1960’s the development of the recycled paper business accelerated and in 1971 SCPF decided to change the name of the section dealing with recycled paper from “The Waste Paper Section” (Avfallspapperssektionen) to ”The Recycled Paper Section” (Retur-papperssektionen):

"For several years, this section has been seeking a more appropriate name than "The Waste Paper Section" to reflect the increasing importance of fibre materials collected and returned after consumption. It has therefore been decided that in future we will be known as "The Recycled Paper Section." (Svensk Papperstidning, 1971:11 page 371)

At this time approximately 28% of all paper consumed in Sweden was recycled (the highest figure in Europe) and future recycling figures were predicted to reach 40%. The growth of the market for recycled paper was limited by several factors. Technical problems were seen as preventing the usage of recycled paper in the production of many paper grades other than hygiene papers and various board qualities, which in 1973 were the dominating "waste paper containing" products.

Another problem restricting the increased usage of recycled paper were the collection costs. At that time the major source of supply was the domestic household, from which newspapers and magazines could be collected. An increase in this would be costly, requiring more efficient methods of collection (Ulfsäter, 1973). As the debate about the wood shortage became intensified the role of recycled paper increased in importance. In 1975 a new law was passed which stipulated the compulsory collection of waste paper and that this was to be organised by local authorities. In 1975 demand also increased when two newsprint mills (Kvarnsveden and Hallsta) installed equipment enabling them to use recycled paper in the production of newsprint (Svensk Papperstidning, 1978:8). 185

185 Recycled paper had been used in the production of newsprint before this, but
Verdier (1977) reported that the use of recycled paper continued to increase in 1977 and further increases were predicted. This made the public referendum on nuclear power in 1980 not only one concerning energy prices. A vote against nuclear power would also open the way for increased usage of both wood and recycled paper as alternative sources of energy (Svensk Papperstidning, 1978:8). The referendum thereby became of vital importance to the future of both wood usage and recycled paper (Rydin, 1979; SCPF Annual Report, 1981 and 1982). In 1982, 50% of the consumption of paper in Sweden was recycled and approximately 10% of the raw material for the production of paper was based on recycled paper and future growth was still anticipated.

The competitive climate
The most pessimistic view of the future of the P&P industry was probably given by TUA, 1969. In this report the forest workers union compared the future of the P&P industry to that of the textile industry - an industry in severe crisis and decline. In the TUA report it was suggested that the solution for the forest companies was either to leave Sweden and expand abroad, or to diversify into new business areas (TUA 1969:351-353). Against this background it came as no surprise that the CEO of the trade association, Lars Sjunnesson in 1969 reported a slowdown in investments during the next five years. He stressed changes in investment patterns which figures could not illustrate, i.e.:

"All are in agreement that the present trends towards product development and increasing specialisation will not only continue, but accelerate during the 1970's. This cannot, obviously, reflect or show the paper industry's growing involvement in product development or the refining chain, both on the domestic market and abroad, or the increase in marketing and distribution activities which the industry has now initiated." (Sjunnesson, 1969:803)

these investments led to a substantially increased usage. According to Jrdansson (1978) producers in the US (Garden State) had been producing newprint based on a 100% recycled paper for many years. Thus a technology for the use of recycled paper on a large scale already existed.
186 The Swedish textile industry was almost wiped out in one decade.
In this period, as in the previous one, North American competitors were the major threat to the Swedish P&P industry and still affected the Swedish industry in many respects. The large step-wise capacity increases which had caused the greatest problems for Nordic producers, ended in the late 1960’s.

"The wave of expansion in Canada has now ceased. Many of the new production plants there have been the subject of great disappointment to the investors and owners. They proved to be far more expensive than calculated, difficult to establish, and their start-up costs were substantial.” (Sundblad E. 1970:12-13)

Even if the times of extreme capacity expansion were past, the existing over-capacity of the North American P&P industry constituted a threat, since a recession in North America would almost certainly be followed by an increased export to West Europe resulting in increased competition and reduced price levels, Matts Carlgren stated in 1971 that "The general turn-down in business which has been seen during the previous quarters will probably be of critical importance to forest industries in the rest of the world." (Carlgren, 1971:5) The same year in which Eije Mossberg, argued:

"The second point is that North America is of crucial importance to us, in spite of the fact that we no longer export to this market. This was shown last year, when low domestic demand levels led both Canada and the USA to seek alternative outlets for their production surplus, their main target being Europe......” (Mossberg:1971).

The single most important change in Swedish relationships to the North America industry occurred in 1971 when the Bretton Wood agreement was threatened and the US dollar devalued. As most products were priced in US dollars world market prices were reduced by 7%.

"The dollar has fallen by 7% against the Swedish krona which, for us, represents a price reduction of SEK 60/ton. This is more than we can accept or live with as the differential factor between satisfactory and poor profitability. I regard this, in a longer perspective, as a far more
serious threat to the Swedish pulp and paper industry than any short term fluctuations in the business cycle." (Mossberg, 1972:490)

The effect of the devaluation of the US dollar had different effects on different companies. SCA reported in 1972 that "We must, within many of the product areas affected by these changes, formulate new price policies and structures which reflect and respond to the market influence and activities of our North American competitors." (SCA Annual Report, 1971). Sigvard Bahrke, CEO of ASSI, on the other hand argued in 1972 that the changes in currency exchange rates were of minor importance to ASSI. These varying opinions were probably due to the different financial strategies pursued and the products produced (ASSI Annual Report, 1972). The US devaluation of 1971 was followed by a second, by 10% in February 1973, which together with the oil crisis created new problems for the industry.

In the following recession of 1976 and onwards changes in exchange rates were an extremely important issue, as illustrated by the BCG report discussed earlier. In the public debate that followed the publication of the BCG report, Bo Rydin, CEO of SCA argued for more co-operation within Sweden, as an alternative to the individual subsidies provided by the state to some companies in the industry. He suggested that a ‘Swedish Pulp Company Limited’ should be formed, in which the state would be an influential shareholder.187 This form of a holding company could enforce necessary structural rationalisation and modernisation, and could also be responsible for a more organised and co-ordinated behaviour in the wood market (Rydin, 1978 and SCA tidningen, October 1978). Rydins suggestion was controversial.

"But when a representative of a major privately owned forest company asks the Government for financial aid, in order to create some sort of holding company for pulp production, then I, at least, must react in the strongest possible way. If private forest company is incapable of solving its own investment problems itself, then it has very little justification for its continued independent existence. These comments must also apply to companies who experience difficulty in themselves financing the expansion or renovation of their pulp

187 An obvious parallel to "Swedish Steel" (Svenskt Stål AB, SSAB) established at about the same time.
manufacturing facilities." (Carlgren, 1979:6)

The conclusion of the BCG report was that there were two basic categories of products in the Swedish P&P industry. The 'most justifiable' products were newsprint, sawn timber and coated paper (mainly magazine and coated printing and writing paper). The 'less justifiable' products were bleached sulphate pulp (market pulp) kraftpaper and kraftliner which were very sensitive to currency fluctuations, particularly those related to the US dollar. The BCG report illustrates the importance of exchange rates by referring to bleached sulphate pulp and kraftliner, both priced in US dollars on international markets (DS I 1979:5, page 94ff). In the BCG report a rate of 4.50 SEK to the US dollar was used in estimating the competitive strength of the Swedish P&P industry. Bo Rydin concluded in his comments that had the ratio from the autumn of 1977 (4.85-4.95) been used the conclusions would have been different, i.e. several more products would have been competitive on international markets (Rydin, 1978). Similar discussions concerning the relationship between exchange rates and the ability of Swedish industry to compete on international markets were frequent during these years (cf Rydin, 1978; Önnesjö, 1978; Brändström, 1981). Bo Rydin stated in 1978 that the exchange rate had to stabilise at 5 SEK to a US dollar to ensure the competitive strength of Swedish industry. However, in the autumn of 1978 the US dollar fell, and during the remainder of the 1970's it never reached even 4.50 SEK/dollar. This was a hard blow, especially to companies concentrating their production on market pulp. General pessimism about future development was wide-spread and was reflected by the FAO forecast 1977, regarding demand up to 1990 in Western Europe. Growth in demand was forecast by about 3% annually during this period (1980's) and consequently any increased need for the importation of paper and pulp into the region was low (FAO, 1977:4/2; Svensk Papperstidning, 1978:1).

The Annual Forest Conference was arranged in the summer of 1979, when conditions were at their worst. In his keynote speech Lars G. Sundblad, the acting chairman of the conference, presented two strategies for the P&P industry; the traditional and the future strategy. The traditional strategy, he suggested, was characterised by continuous investment in existing product grades and machinery. This defensive
policy would eventually lead to a situation in which the pulp and paper companies would be forced to leave the country.

"Our forest industry is geared to cost effective mass production of unfinished products for customers in Western Europe. There was a time - not so long ago - when this strategy was very successful. But times have changed." (Sundblad L G. 1979:8)

Regarding future strategy, he stated that efficiency must be combined with professional marketing, finding new product usages with good growth potential, and massive investments in product research and development and new production processes. In short Sundblad wanted to increase the resources available for industrial research and development with the aim of adding more value to products made by the Swedish pulp industry.

"The forest industry has a long tradition to be proud of, and we still have an important position to maintain. But we cannot afford to embark upon a strategy of defence. We, within the sector, have started to think and act more aggressively, by implementing new technologies, new marketing strategies, increased product research and development - all of which reflect our faith in the future." (Sundblad, L G. 1979:11)

The devaluation of the Swedish krona that took place in 1981 (10%) changed the situation. Some experts saw the 1980’s as a decade in which the industry could count on growth (Brändström, 1981; Wergens, 1981). The devaluation of 1981 was followed by another in 1982 (16%), which radically changed the conditions for the Swedish P&P industry.

Environmental issues

In any overall explanation and description of the development of the Swedish P&P industry, increasing pressure from the environmental activist lobby cannot be neglected. Increasing investments in measures for environmental protection were often regarded as competing with more directly productive investments in the beginning of the 1970’s. In many speeches pollution issues were regarded as already resolved. The Swedish Water and Air Pollution Research Institute (IVL) was
established as early as the 1940's to develop methods for the reduction of water and air pollution (cf Billerudsörnen, 1970:4; Svensk Papperstidning 1973:18; Schotte, 1978). Increasing public concern about these issues is reported in SPF’s minutes from 1953, following which decisions were taken to increase investments in measures to counteract these effects:

"As a result of the Board's awareness of the increasing concern and importance being given in the public debate in recent years to questions regarding pollution of our waterways.” (SPF, Annual Report 1953:47)

Efforts made to reduce pollution during the 1960’s and earlier were often based on what was called ”available technology" and industrial research was mainly focused upon discharges into air and water. Specific measures were obviously taken by each company. As the public debate became more and more intense, the National Environmental Protection Board (Naturvårdsverket) was founded in 1967, and stricter anti-pollution legislation was enacted in 1969. As a result of this the need for further measures increased (SCPF 1968:4, appendix 5) and to review the current situation and to propose areas in which new methods and technology could be developed, the trade association initiated a joint research project in 1970 (SSVL Miljövårdsprojekt).190

"There is an obvious and apparent risk that investments undertaken on the basis of information available today can soon show themselves

188 In some cases industry efforts were considered to have begun as soon as the first decades of the 1900’s, when the smell and water pollution close to the mills forced some companies to take action. An old method of reducing pollution was to refine the residuals from the process and the by-products emerging from this process were considered important growth areas in the pulp industry, before and immediately after the Second World War.


190 The project was industry wide involving more than 70 individuals and had an initial budget of 20 million SEK (Billerudsörnen, 1970:4). Schotte (1978) reports that the entire cost for the project turned out to be 30 million SEK when the project ended in 1973.
to have been misplaced: either because of the development of new technologies, changes in market demand, or increased environmental legislation. In order to be able to respond in advance to any possible future environmental demands, as well as to lessen the effects of any investments made not taking these factors into account, we feel that immediate research projects should be initiated by our industry.” (Sjunnesson, SCPF memorandum 1970:1)

The results of the research project were published in 1973 and its findings were that the efforts made during the 1960’s combined with the restructuring of the industry had reduced pollution enormously. The sulphite mills for instance produced only 25% of the total volume of pulp, but they were responsible for more than 50% of the pollution in 1969, since when many had been closed down, reducing overall pollution levels substantially (Svensk Papperstidning 1973:18). The development towards more sulphate pulp and large scale production could thus be seen as a result of many forces, including environmental demands (Sundblad E. 1971). The concluding remarks of the project group stated that precipitate decisions taken in the 1960’s yielded rapid results, but that “Now, it is time to switch to more methodological work on environmental protection as an integrated part of the long range planning of the forest industry” (Svensk Papperstidning 1973:18 page 670). The report predicted a somewhat slower pace in the efforts to reduce pollution in the future.

Some experts argued that environmental investments in the future should be made in such a way that they would not reduce the competitive strength of the industry, i.e., the level of investments had to match those of competing countries (Mossberg, 1970; SCPF Annual Report, 1969:34). However a large number of ambitious individual environmental protection projects had already been started. Some of these were reported in the early 1970’s under headlines such as "Billerud goes for the Environment” (Svensk Papperstidning, 1972:4 page 29), "SCA to spend millions on pollution control” (Svensk Papperstidning, 1971:17 page 530) and "10 million environmental investment by Iggesund in Ströms Bruk.” (Svensk Papperstidning, 1971:9 page 289). Many such programmes were introduced during this period, and in 1971 two pulp and paper companies won prizes for the measures taken to reduce air and water pollution (Svensk Papperstidning 1971:21).
According to an industry survey made in 1970/71 the view taken was that investments in environmental protection were necessary, but that investments would decrease as societal demands were met during the period 1970-1975. It was predicted that environmental investments would represent some 12-15% of total investments in this period (DS I 1972:4 page 23).

As it turned out, environmental investments were still of substantial importance in 1974. Focusing on profitability and the need for new capacity in the industry, Lars Sjunnesson concluded that "the heavy - and necessary - investments for environmental protection take up a considerable portion of the industry’s financing capacity" (Sjunnesson, 1974:579). During the period 1974-1978 the industry planned to invest SEK 750 million in environmental protection (SCPF Annual Report 1973) and in 1976 a new survey indicated investments in the period 1976-1980 of some SEK 1,800 million (SCPF Annual Report, 1977).

However, actual investments in the period 1976-1979 only reached SEK 1,000 million. This decrease, compared to the planned level reflected the low profitability of the industry during that period (Svensk Papperstidning, 1981:7). Lennart Schotte, discussing the strategy of environmental issues in 1978, concluded that future investments were necessary, but that they had to be undertaken in a way that allowed the survival of the industry (Schotte, 1978). At the end of the 1970's the general opinion of the Swedish pulp and paper industry seems to follow Schotte's, and that since the industry had focused on investments in environmental protection for some time, Sweden was in the forefront of this field. Furthermore comments made by experts in the early 1980's indicated that it was now up to the international competition to decide what efforts in this field were possible and necessary in the future (See for instance SCPF Annual Report 1981; Wergens, 1981; Rydin, 1982 and Skogsindustrin - en hörnsten i svensk ekonomi, 1982).

**Energy - a production factor worthy of attention**

The international oil crisis in 1973 underlined the urgent need to find new energy sources and to cut energy costs. Increasing oil prices forced the industry into using more electric power. It was also an "Alarm clock" (Sundblad E. 1974:1) in the sense that energy consumption was focused which resulted in many projects being
initiated to reduce energy consumption in production processes. Bo Rydin (1974) added that increased oil prices even favoured the Swedish P&P industry since the distance was shorter from the Nordic countries to Western Europe than across the Atlantic, and that consequently transportation costs had increased more for North American producers.

In the following years energy prices stabilised and the issue disappeared from the agenda. However in 1978-1980 it reappeared, partly due to the new oil crisis of 1979 and partly following the public referendum on the future of nuclear power in 1980. The importance of the issue was illustrated by Bo Wergens in 1979.

"Our industry was founded upon, and developed with the certainty of the uninterrupted supply of electric power at reasonable prices."
(Wergens, 1979:375)

The obvious conclusion was thus that the competitiveness of the existing industry structure depended on low energy prices. Wergens issued a warning in this connection, that adding value to the products made by the P&P industry - requested by many - required a continuous supply of low cost energy. Consequently, it is of no surprise that energy conservation was in focus at the time (cf Rydin, 1979; Sundblad E. 1980).

As a part of its task to collect and distribute information, SCPF initiated a study of the possible effects of abandoning nuclear power. Assuming a complete closure of all nuclear power stations and a subsequent increase of energy prices by 50% the investigation showed that 20% of the P&P industry would have to be shut down in ten years, and about 50% of the industry would suffer from stagnation (Svensk Papperstidning 1979:16). The result of the referendum was that the nuclear power stations should be closed down, but the closures would be made progressively over "a reasonably long period". Erik Sundblad concluded that the result of the referendum only offered temporary relief and that energy savings had to continue.

"The sigh of relief that those of us within the power consuming industries drew after the results of the referendum must not become the self-satisfied yawn given before going to sleep." (Sundblad E. 1980:1)
As a result of the referendum, increased efforts to use biofuels were initiated. In 1981 the government proposed measures intended to increase the use of wood as fuel. The proposed state subsidies to achieve this caused anxiety in the industry. The implementation of such a system would most certainly increase wood prices, and probably also reduce the long-term supply of wood (Wergens, 1980; 1981; Landqvist, 1983). Subsidised biofuel for energy production was however only part of the problem. The political ambitions formulated in 1981 were strongly rejected by the industry for two other reasons. The first was that the state surveillance system intended to ensure energy saving in the industry. The system was not only perceived as complicated, but also as casting doubt upon the industry’s willingness to save energy (Svensk Papperstidning, 1982:5). The second was the increasing level of energy surcharges (Svensk Papperstidning 1982:3). In the period 1980-1982 energy taxes increased by 100% (Landqvist, 1983).

4.5.3 1969-1982 - The issues

The increasing cost/regulations in Sweden

At the end of the 1960’s profitability had emerged as one of the most vital issues in the industry. Profitability was also in focus in the period 1969-1982 and the low profitability at the beginning of the period was due to international demand and the cost situation in Sweden. The increases in wages and prices of wood were important factors in reducing the industry’s competitiveness.

As results improved in the early 1970's the profitability debate disappeared and instead the labour unions now focused on the excessive profits made by the industry. The profitability issue returned when the recession arrived in 1975/76 and stayed on the agenda as the recession became prolonged. Eventually the low profitability of the

---

191 The experts obviously agreed that producing energy out of useless wastes from the P&P industry was a good way to proceed, but they protested against using prime wood for such purposes.
industry became a question of survival for many companies.

Profitability was, as usual, connected with cost levels in Sweden. Wood prices, partly resulting from high wages in combination with regulations enforced by the authorities, were seen as major obstacles for the industry's development. At the end of the period the trade association increased its efforts to influence and change the decision makers opinion about the industry.

How to achieve a stable market balance

Closely connected to the issue of profitability was the market balance. At the beginning of the period the slow growth in demand was the major topic. However in the middle of the period this increased so quickly that the industry had difficulty in satisfying the demand from international markets. At the end of the period the international market balance issue became somewhat overshadowed by domestic problems. International demand was growing but the Swedish producers still had difficulties in maintaining their market share.

Trade liberalisation

Following the governments decision not to apply for membership of the EEC, negotiations about trade agreements between Sweden and the enlarged EEC took place. The industry took an active part in these negotiations since some form of agreement with the EEC was seen as vital for the future of the industry. The result, when reached, was disappointing since it stipulated a transitional period of up to twelve years to allow for adjustment of trade regulations, which was considered to be far too long. Moreover, the agreement was very complicated and could be subject to different interpretation. In the following six years the trade association was involved in attempts to negotiate interpretations of the agreement. The arguments used by the continental industry followed traditional patterns and the Swedish industry continued to plead for a "live and let live" policy. It was a relief when the EEC commission in 1978 declared that the agreement of 1971 should be followed and that Sweden would be granted a free trade status in 1984.

In the last years of the period the issue changed character, since attention now became focused on the threat from the North American
industry. Several attempts were made to encourage and motivate the continental industry in order to hinder North American producers from making inroads into EEC markets; the formation of the EPI in 1979 was one result of these attempts.

The increasing attention from the public and the authorities
An emerging public concern about the activities of the P&P industry in the 1960’s increased in the following decade at the same time as the authorities began to take a much more active interest in the industry's development. Their interest focused upon environmental issues, energy consumption and the general profitability of the industry. The wood shortage experienced in the mid-1970’s was also a factor of major concern. The response from the industry was to initiate a new information strategy. Surveys of public opinion, lobbying and information campaigns became an increasing part of the trade associations tasks, which increased towards the end of the period. The industry was forced to do this because of increasing attention from both the public and the authorities and the main question during the period was how this increasing pressure should be met.

A shortage of wood?
In the latter years of the 1960’s interest in the future supply of wood was renewed as demand increased and an imbalance in forest structures could be observed. Increases in demand during the first part of the 1970’s and investments planned for the following years made the situation become acute in 1973-1975. The problem was no longer regional, as now no part of the country was seen as self sufficient in the long-term.

The view held in 1975 was that "the short recession" would ease the situation for a while and that the problem of wood supply would increase in the following years. As the recession continued the nature of the issue changed. In the latter part of the period the low profitability of the industry was blamed on wood costs. High wood prices were maintained by the reluctance of private forest owners to increase fellings. The question then became: how to increase fellings?
Future methods of forestry

The criticism against industrial forestry which emerged in the 1960’s continued and gained strength during this period. "An environmentally friendly” alternative was suggested in some official reports of the Swedish government which indicated the increasing importance of the environmental movement. However, industry experts still resisted the idea of a more environmentally friendly forestry. Governmental policy concerning this issue can also be regarded as somewhat paradoxical as it supported increased fellings at the same time as laws, regulations and taxation restricting industrial forestry were enacted.

New countries entering the pulp markets

In the 1960’s the emergence of new sources of supply, and the long-term supply of West Europe market requirements became divided into two issues. In this period these two issues became practically inseparable. In the early 1970’s demand from West European markets grew, which made the threat from the emerging producers of pulp negligible. They were seen as an answer to the growing demand for pulp on West European markets. Following the recession this opinion changed. New producers were able to compete successfully with Nordic producers and were now regarded as a potential threat. The issue of how to deal with this problem was delicate.

The role of plastics

The increase in the use of plastic products became obvious during the 1960’s. Low production costs and good quality made plastics a substitute for paper-based products in sacks, packaging materials and corrugated board. The threat of plastics faded as oil prices increased in 1973. The second oil crisis of 1979 reduced the threat further and finally the environmental movement acted against plastics and therefore the issue disappeared from the agenda in 1974/75.

Recycle - do not burn!

Waste paper has historically always been incorporated as a raw material in new paper production, but the general opinion has always been that products made from recycled paper were inferior compared
to those based solely on virgin fibres. The environmental movement increased the interest in recycled paper in the beginning of the 1970’s, a development that coincided with the acute shortage of wood in 1973/74. The importance of recycled paper was seen as limited even though supplies became worth defending when any alternative usage was proposed. This occurred when the energy debate was at its most intense. Recycled paper gradually became seen as a significant source of raw material and the ensurance of a regular supply of this resource became a major concern of the industry.

**Fluctuating exchange rates**

After the abandonment of the Bretton Wood system exchange rates fluctuated. Among those who lost on this were P&P companies outside the US who traded in US dollars. Exchange rates suddenly became more important than business cycle variations. A change in the value of the US dollar by 5-10% had an enormous effect on profitability. This remained a problem during the entire period. Consequently the industry was very concerned with Swedish economic policy, particularly the devaluations which occurred in 1982, which were of vital importance to the industry.

**Pollution in focus**

Pressure from the environmental movement, together with increasingly strict legislation, forced the industry to invest heavily in environmental protection projects in the period. Industry experts often regarded this as "non-productive investments" that reduced competitiveness, but at the same time they realised that most of the investments were unavoidable. They also considered it of the utmost importance that future investments were backed by qualified research and production certainties. The strict legislation concerning environmental protection did, however, help to accelerate the necessary restructuring of the industry.

After the first wave of investments in environmental protection had been carried out, the general opinion was that the pace of investments had to slow down; the issue being how to make the public aware of the reasons for the reduction in environmental investments?
The supply of energy

Finally, the energy supply situation must be highlighted. The most obvious events were the oil crises of 1973 and 1979. These brought the attention of the public and the industry to the huge amounts of energy used by the P&P industry and the result was an enforced reduction in energy consumption and a shift from oil to hydro-electric and nuclear power. The oil crises were of great importance, but they did not have any effect on international competition, as all producers were faced with the same increases. The oil crises did, however, result in increased attention being given to alternative energy sources. Biofuels and recycled paper were two of these alternative sources, but as both of these threatened the supply of raw material to the P&P industry they were obviously rejected by industry experts. The referendum concerning the future of nuclear power was another factor causing anxiety within the industry since the supply of this low priced energy was threatened, which could lead to one of the most important factors in the current production cost calculations being negated. The referendum was followed by attempts from the government to introduce a more aggressive energy policy. These also posed a threat to the industry since they included new, more costly administrative procedures, and higher levels of taxation. The trade association carried out several lobbying and information activities in their attempts to change these policies and to reduce the effects of these threats.

The third part of the issue chart can be now constructed.

Figure 4.9. The issue chart 1969-1982
4.6 1983-1990 Recovery and expansion

4.6.1 The Swedish social and economic development 1983-1990

As described in the previous section, the first years of the 1980's were characterised by growing pessimism about the future. Myhrman (1994) quotes a typical forecast made by a professor of economics in 1981.

"The most optimistic forecast for private consumption during the 1980's is one of zero growth. If the six determinative factors show any negative tendencies, Sweden will revert to the level of 1968 i.e. private consumption will show an annual reduction during the decade of 1.8%." (Lybeck, 1981 in Myhrman, 1994:201)

This pessimism was understandable considering the situation at the beginning of the 1980’s. 1981 was the second year in a five year period in which GDP decreased. The devaluation of 10% in 1981 was followed by a second, of 16% in the autumn of 1982, a year in which the slow signs of a recovery were noticed. That the period 1983-1989 was a period of intense growth in the economy came therefore as a surprise. Myhrman (1994) concluded that if the 1970’s was a period in which the capitalist system was seen to be doomed, the 1980’s became
a period in which capitalism became raised from the dead. It was a period in which fortunes were both made, and, as we now know, lost just a few years later.

The first part of the growth period 1983-1985, was seen as a natural part of the business cycle. Growth followed the overall growth pattern in the world economy but was also fuelled by the large devaluations in 1981 and 1982. This period of growth has often been referred to as the "third way"; an economic policy which aimed to combat both inflation and unemployment. An important part of this policy was to favour export industries. Devaluations reduced the costs of export industries by some 20% compared to their major competitors (Eklund, 1993). "Feldt's (the Minister of Finance) plan, was in a nutshell, that he bought time through industrial expansion. This time could then be used to restore the balance of the economy." (Myhrman, 1994:205).

As a result of the devaluations, export oriented sectors of industry showed increased profits, and investments more than doubled in the period 1982–1989.

The political debate was dominated by the proposed introduction of the wage earners' investment funds in 1983. The debate about these funds was intense and a demonstration on October 4 in 1983 illustrates the importance of the issue. The political opposition and the industry representatives saw the funds as a new way of introducing increased socialism in the country. Hadenius (1996) also argues that new and more liberal trends in society were gaining ground in this period.

Assuming that traditional patterns in business cycles were maintained a new recession could be expected in the period 1986-1988. The sharp fall of the stock market in 1987 was considered as one indicator of the coming recession. The domestic debate about environmental problems in the general election campaign of 1988 and the debate about Sweden’s relationship with the EEC also added to the gloomy scenario. Finally decreasing economic growth was also seen as a sign of the expected recession.

"The fall of stock market values seen in the latter part of the year -

192 This demonstration against the wage earners' investment funds is often seen as the first time that the right wing parties and the industry joined forces in organising a large demonstration in Sweden.
which can be attributed to the increasing US trade deficit, and subsequent concerns for a possible fall in the value of the dollar - resulted in downward revisions in forecasts for economic growth during 1988. Fears were expressed for an overall business recession, which was the reason for the defensive measures taken by the industry to prepare for the prospect of a worsening market situation, and a reduction in outlet possibilities.” (Skogsindustrierna Annual Report, 1987:3)

The feared recession did not materialise, and as demand continued to grow towards the end of the decade optimism became overwhelming. As a consequence of this the "third way policy" was seen as a success. The Economist published articles about "the Swedish success story". In retrospect this "time of illusion" (Myhrman, 1994) is easy to explain; a combination of deregulation of financial markets, a reversed oil crisis (world prices of oil decreased) and high inflation, are often mentioned as important factors. The problem in controlling general cost increases was mainly caused by the growth in demand which increased capacity utilisation in the industry and reduced the unemployment level to some 1.5-2%. As a result of this low unemployment, wages increased at a faster rate than in competing countries.

The international changes in Europe in 1989 made the relation to the EEC an important issue. The traditional situation comprising two political blocks, with Sweden in the middle suddenly disappeared, as communist regimes fell, one by one. A way to satisfy the advocates of full membership of the EEC was the new agreement reached in 1989. However, in October 1990 the government declared, rather surprisingly, that full membership of the EEC was not out of the question, and negotiations concerning this were soon initiated (Hadenius, 1996).

"The third way" lost popularity in the beginning of the 1990’s as threats of a new recession were seen. The Social Democratic government made dramatic attempts to break this trend. The measures suggested failed to gain the support of Parliament and as a direct result of this the government resigned. The Social Democrats made a fast comeback to office following deals made with some of the opposition

193 The EES agreement.
parties. Interest rates, which had been increasing since 1989, temporarily stabilised as a result of these political manoeuvres. An important feature of the 1980’s was the increased internationalisation of the industry. Swedenborg et al (1986) argue that there were several reasons for this. They gave as examples of these, the policy of deregulation pursued by the EEC since 1982, the deregulation of currency regulations, the uncertainty about Swedish economic policy and that the large companies in Sweden were based on mature industries in which a growing international restructurisation was taking place in the 1980’s.

This trend of the early 1980's became more intensified in the latter part of this decade. Foreign investments increased from about SEK 5 billion in 1980 to SEK 15.7 billion in 1985 and to SEK 83.8 billion in 1990. The completion of the single market (i.e., the integrated EEC market) was given as the main explanation for the sharp increase in foreign investments in the late 1980's (Nutek, 1992/93).

4.6.2 The pulp and paper industry 1983-1990

The pulp and paper industry and the public debate
In the late 1970’s the industry took an initiative in an attempt to influence the public debate. This initiative was also pursued during the following years. The long-term trends in demand growth gave no hope for the future in the early 1980’s.

"Our industry is subject to the extreme cyclical effects of the supply and demand situation and we must therefore live with poor profitability in the troughs. To balance and counteract this we must be able to generate what are regarded by some as "excessive profit margins" during periods of economic growth and expansion. Unfortunately, we have not experienced any such periods since 1974. If we were to summarise the last few years - 1975-1982, we can only point out that profitability has not been enough to cover any reasonable expectations for return on investment, or the generation of funds for future investment." (Sprängare, 1983:2)

Against this background it is not surprising that a more liberal
economic policy in Sweden was demanded.

"We are of the opinion that the forest industries can only expand and develop given freedom, and that the overall result of individual actions and considerations will give the best possible result.” (Landqvist, 1983:3)

In 1982 a document was published by the trade association in which the industry’s point of view regarding many issues was clarified and explained. Many vital topics were covered, such as: profitability and investment, trade policy, research, environmental issues, energy, timber supply, recycled paper and transport policy. All of these were subject to comments from the industry, that demanded improvement in governmental policy. It was assumed in the beginning of the document that both the government and the public recognised the importance of the P&P industry in the overall restructuring of the Swedish economy. It was emphasised that this could only be achieved by more favourable economic conditions (Skogsindustrin - en hörnsten i svensk ekonomi 1982). In retrospect the list of issues can be seen as a collective agenda for the P&P industry in the 1980’s.

As the situation continued to improve, the trade association became more aggressive in this debate. In 1988 Bo Wergens in a rhetorical and dramatic question asked whether Swedish politicians wanted a Swedish forest industry in the future or not. The background to the question was the energy policy and environmental legislation, both areas in which future uncertainty was great (Wergens, 1988:2 and 17).

In 1987, as exchange rates developed unfavourably, the relatively high cost of wood once again became a major problem (cf Löf, 1987).194

"They (the politicians) have left it too late, and they have not seen the creeping deterioration of our ability to compete on international markets caused by the self-inflicted imposition of extra costs. They seem to regard market demand as the same as profitability, and disregard the fact that domestic (Swedish) cost levels are of crucial, if not determinative importance.” (Martin-Löf, 1989)

---

The wood costs were high compared to North American wood costs, whereas in relation to the wood costs in the EEC, they were rather low.

194
A peak in information activities was reached in 1990 when the trade association celebrated its 100th anniversary. A number of conferences and activities drew attention to the forest industry - "an industry for the future of our country" as it was formulated in the annual report in 1990 (Skogsindustrierna, 1990:1). Many of those interviewed saw this anniversary as the celebration of the traditional co-operation within the industry (Wergens 1995; Wohlfart 1996; Sundblad L G. 1995).

The future of co-operative arrangements

In 1987 a debate about the future of the Swedish Forest Product Research Institute (STFI) entered the agenda. This research institute, founded by the industry at the end of the Second World War, was jointly operated by the trade association and the companies in the industry. Its activities were financed by government contributions, fees from the members and revenues from consultation work on specific development projects. Professor Stockman, CEO of STFI, 1968-1985 in a discussion regarding the future of joint technical research argued that the institute had to expand its links, not only with the producers of pulp and paper, but also with the suppliers of machinery and chemicals, as well as becoming more active in commercial projects. There was no doubt in his mind that the institute would play an important role in the future development of the Swedish pulp and paper industry.

In 1987 Sverker Martin-Löf, CEO of SCA, proposed the closure of the institute. He reasoned that basic research should be financed by the government and specific research and development projects (R&D) should be undertaken by the major companies in co-operation with their suppliers.

"The future need for, and structure of specific research is very much dependent upon current industrial rationalisation and restructuring. The remaining larger units must increasingly take care of their own trouble shooting and increase their process rationalisation. (Martin-Löf, 1987:3)

195 The exact words were "scrap STFI" (Skruta STFI).
In the following debate, researchers and consultants argued against Martin-Löf’s idea. Ingemar Croon, an independent consultant, stressed that the success achieved in pulp and paper research in Sweden was a result of co-operation (Svensk Papperstidning, 1987:4). Croon also saw a developing need for innovative co-operation procedures and forms as the industry entered an increasingly global environment. Professors Ingvar Jullander and Bo Norman, representing the research society also wrote articles in which they counteracted many of the reasons given by Martin-Löf (Svensk Papperstidning, 1986:6).

The debate was followed by the reorganisation of STFI’s financial support at the end of 1987. This was the first of several reorganisations that followed in the next few years. A major restructuring of the research institute took place in 1989, when resources were cut and the emphasis was placed on basic research.

Eventually the organisation of the entire trade association became the subject of discussion. Following an internal investigation, a decision about the future of the trade association was reached at the end of 1991. Operations were to be concentrated on specific short-term projects and as a consequence the funding was reduced by some 60%, and a large part of the staff were declared redundant. The connection between the trade association, (Skogsindustrierna), and STFI also ceased as a result of these changes. From then on the two organisations operated independently.

The background to both the above discussions was the ongoing restructuring and change of ownership in the industry. At this time, independent companies in the Swedish P&P industry could be divided into three groups; the large internationals (or the “big four”), the medium sized companies, specialising in a few products and the very small niche companies. The large internationals were now so large that they could perform many of the trade associations traditional tasks. At the other extreme were the small niche companies who could not afford to spend large sums in joint activities which only resulted in low immediate returns. This reduced the basis of support for the traditional trade arrangements. Those who remained in support of the existing system were mainly the medium sized companies (Wergens, 1995; Wohlfart, 1996).
The international arena

The future concerning the expansion of international markets was optimistic since many of the long-term aims had been achieved during the period. In 1984, the Swedish P&P industry finally attained its long awaited goal when free trade between the EEC and EFTA, agreed in 1973, became a reality. The transitional period of eleven years was over and gradually decreasing duties had reached zero level; Free trade, no trade barriers whatsoever would exist in the future. Since duties had been successively reduced, 1984 was seen more as a psychological milestone than anything else, and even if free trade status had been reached, the opinion was that the industry should be careful and not immediately challenge the West European producers with increased exports of finished paper qualities.

"We have every reason to maintain our present good relationships with the European paper industries. They are the customers for our production of pulp. We must therefore pursue the philosophy of "live and let live". This does not mean that we totally relinquish any of our existing market shares of writing paper in Europe. By acting gradually and carefully, we still can retain the possibility to increase these quantities." (Sundblad E. 1983:6)

In 1985 three new paper machines for writing paper were ready for start-up in the Nordic countries. Writing paper had traditionally been a grade which had mainly been produced and consumed within the EEC and it was only during the 1970’s, that Swedish export in this market increased substantially.196

The EEC paper industry still regards their traditional priority regarding the production of writing paper & paperboard as "commercially and politically sensitive." (Wergens, 1983:11)

A reaction to this development from the EEC was therefore to be expected, and in following negotiations it was agreed that the new

---

196 MoDo caused some debate when starting a large machine in 1972. At that time the problem was mainly the large total capacity increases in the Nordic countries. The Finnish increase was even larger than the one taking place in Sweden. MoDo’s entrance into this product area in the 1970’s is further discussed in chapter eight.
volumes produced in Sweden would only be introduced incrementally on the West European markets (Sprängare, 1985:16).

In 1984 the conclusions arrived at by the inquiry of the EEC Commission were published in the form of alleged price fixing among pulp producers. The product of primary concern was bleached sulphate pulp and the decision of the commission was to impose penalties upon a number of Swedish, Finnish and North American pulp producers. New rules for the setting of pulp prices in Western European markets were also determined. The exporters would no longer be allowed to use the US dollar as the trading currency.

To improve Swedish relationships with the EEC P&P industries, the European Paper Institute (EPI), formed in 1979, was reorganised in 1983. The aim of the institute was to continue to be a forum for the exchange of information and negotiation, especially with the trade association of the EEC paper industry (CEPAC).

In 1986 the chairman of CEPAC gave a speech in Stockholm in which he accused the Swedish P&P industry as responsible for the oversupply in EEC markets (Svensk Papperstidning, 1986:8; see also Skogen, 1986:32). The reason for this was probably a combination of the large investments seen in the Nordic countries together with the expected recession. This speech was the subject of many articles in Swedish newspapers, and in one of them Bo Wergens, CEO of SCPF, replied that the role of CEPAC was, of course, in the best interests of the EEC industry and that they therefore should use every opportunity to reduce imports from countries outside the EEC. He continued:

"But we will always continue to provide not only our customers and competitors, but also the EEC Commission and national authorities with facts about the Swedish industry's position, development and capability, and our role as a major and responsible supplier of pulp and paper products to customers in the EEC. " (Wergens, 1986:8)

In December 1986 relationships with the EEC changed as the community decided to comply with the intention of the Treaty of Rome in 1956, the so called Single Act. Single market status was to be attained in 1992. EFTA countries were now forced to adjust to these coming changes. They were naturally of the greatest concern to the Swedish P&P industry which was reflected by the joint declaration made by six CEOs of major Swedish companies who confirmed that
they regarded Europe as their domestic market, in statements on the outside cover of the 1986 trade association annual report (SCPF, 1986), they demanded a Swedish membership in the EEC.

The relationship between Sweden and the EEC in 1989 was not clear and the governments position was that Sweden must, in many cases harmonise legislation according to EEC standards, but wait for application for full membership. This uncertainty about the future regarding the EEC was the concern of many industrialists when discussing future investments.

"The state can therefore not count on any major investments being made by MoDo. We feel that our interests are best served by investing overseas. This decision has not only been influenced by the uncertain energy and labour cost policies in Sweden, but also - and perhaps to a greater degree - by the increasingly interesting developments and potential seen in Eastern Europe and the EEC." (Carlgren, 1990:5)

The changes in the political structure of Europe which took place during 1989-1990 were of major importance to the P&P industry. Some industry experts argued that the expected recession could be delayed, should demand increase from the former socialist republics. One of the basic questions was if a change in Sweden’s relationship to the EEC could occur in the context of the changing international political scene. In 1991, Sweden did, however, finally apply for membership of the EEC.

The supply of wood

The supply of wood was a major problem for the P&P industry in the 1980’s. The reason was not, as in previous periods, the actual or predicted physical wood shortage since according to most industry experts annual growth had been higher than average fellings since 1974. The problem was that regulations and the taxation system provided few incentives to increase the level of fellings.

In 1982 the government announced a new forest policy in which increased central planning, regulations regarding levels of felling, and financial incentives to increase forestry efficiency were the main ingredients. The trade association accepted several parts of this policy but noted that increased production, by the use of ditching, increased
fertilisation, pesticides, and the extended use of new species such as Pinus Contorta, were still needed (SCPF Annual Report, 1982:12).

"The relatively poor supply of wood during recent years has nothing to do with the available resources. On the contrary, we have more access to forests, and a higher annual growth rate than ever before. It should not therefore pose any problem for Sweden to supply its present industrial capacity, given that we are allowed to pursue a rational forest policy and thereby increase productivity." (Rydin, 1983:8)

Different methods of increasing fellings were discussed in 1983. Punative taxation policies were seen as one important reason why private forest owners were generally reluctant to increase their fellings. There was another reason for the low level of fellings. This was that many forest owners lived in cities and forestry was a marginal source of income for them. These owners were not directly involved in the problems of forest management. The industry's position was that government interference would not be able to solve this problem, and the inception of a straightforward policy with long-term goals was the best solution (Svensk Papperstidning, 1983:6).

In 1985 the Minister of Agriculture initiated a commission which was to examine future possibilities of increasing the wood supply. Three alternative scenarios for the future of forestry were presented; one assumed the status quo; a high growth alternative assumed that extended large scale industrial forestry methods would be allowed, and the low growth alternative assumed that environmental restrictions would increasingly be enforced. All three alternatives predicted a substantial growth of the forests during the first 50 years and after this period substantial differences between the alternatives would be seen.

The production of pulp and paper reached a peak in 1985, but fellings were still lower than annual forest growth. The debate about the future supply of wood could therefore be seen as optimistic. The long-term uncertainty about the supply of wood was over. It was now a question of how to recompense forest owners for the wood needed by the industry. Industry experts warned that even if the immediate future seemed bright, governmental forestry policy would have a large impact on the supply situation of wood in the future.
"It is our responsibility, when building for the future to utilise the limited resources of wood in the best possible way. Another, just as important task, is to facilitate the increase in growth, and consequently the wood supply from the forests. The reality is, unfortunately, that at the present time the existing wood supply is threatened, principally by political interference. Time after time the importance of wood supplies for our industries has had to yield in the face of other competitive interests. It is really incomprehensible how both local and central authorities can bite the hand that feeds them best." (Berggren, 1985:4)

Two other factors contributing to the development in 1983-1985 were: the import of wood and the growing use of recycled paper. The situation abroad made it possible to complement the Swedish supply of wood with the import of marginal quantities which together with the increasing use of recycled paper (consumption more than doubled during the period 1975-1985), offered an additional supply of raw material. These alternatives also had some effect on the price levels in Sweden. Even although the costs of wood were seen as high compared with competing countries, high taxes, regulations and increasing wage costs kept them at a high level even though the physical supply of wood exceeded demand.

In 1986 fellings increased in the Swedish forests, although increased wood prices were a negative factor. The situation remaineded the same in 1987 - increased fellings and high prices. As a consequence the importation of wood continued. In the last six months of 1987 political measures such as the deregulation of the market for wood made the situation look more positive. Bo Berggren, CEO of STORA concluded a review of the prevailing situation with the following words about the future.

"We therefore find some justification for expressing a more optimistic opinion concerning the crucial question of wood supply in the future." (Berggren, 1987:14)

The opinion about the future supply of wood was even more optimistic in the government's long-term planning report of 1987.

"The greatest problem we are faced with today is that industrial capacity is not sufficient compared to the available raw material production. The forests' annual growth rate increase is currently 100 Msk3, compared to the required 70 Msk3 at full production capacity, the annual average during a typical business cycle being 65 Msk3. It is therefore urgent that steps are taken to encourage and stimulate an increase in industrial production capacity." (LU87, appendix 6:151)

In the following years the wood supply was of minor importance to the industry since the supply was good. Wood costs were still high, but they were, at least, not increasing. As fellings increased in the period 1986-1989 imports of wood decreased (Remröd, 1989) but in 1990 the debate about the forest policy started again as one investigation was reported and another initiated. The one reported, conducted by the National Environmental Protection Board (Naturvårdsverket), was criticised by the P&P industry since they felt that the investigation was biased in the environmental debate. Moreover the investigation was based on the old "planning perspective".

"However the premiss of the investigation was based upon central planning, in which an "offensive strategy" for nature conservancy implies that the greatest social benefits are to be obtained through increased planning, more administrative legislation, and an authorisational bureaucracy." (Remröd, 1990: 58)

The public inquiry initiated in 1990 reviewed the overall forest policy. The reason for this study was that new knowledge had emerged making a review necessary (Sweden’s New Forest Policy, 1996).

**Forestry and the environment**

Changes in environmental legislation proposed by a governmental commission in 1980 was opposed by the industry. The government aimed to pass new legislation in 1982, but the decision was postponed following massive criticism. In the following two years the industry argued repeatedly for changes in the original proposal in which it was suggested that forestry not should be classified as a national interest. This meant that the environment and recreation were to be given
priority in decisions about the future use of forests. Furthermore the proposal suggested that large geographical areas should be designated as national parks and thus saved for future generations, for which the compensation levels would be low.

"What makes this matter serious is that it involves huge areas of land. About 1/4 of the whole of the country could be designated as national recreation and conservation areas. Many millions of acres of productive forest land are encompassed by these proposals, and vast areas could become subject to restrictions and prohibitions.” (Rydin, 1983:10)

The trade associations described the essence of the problem in a brochure.

"It is not a question of giving the forest industries any favourable treatment. We have only requested the same level of consideration as that given to other interested parties. Taking into account the importance of forestry and the forest industries in the national economic perspective, this request can only be seen as reasonable.” (Nya marklagar - hot mot Sveriges skogsnäring. SCPF, 1985:8)

When the new law was finally passed by the Swedish Parliament in 1986 substantial alterations had been made to the original proposal, because of the criticism (cf Forssblad, 1986). However, during these years the industry’s view concerning forestry issues had changed drastically. In 1983 the official standpoint was that increased use of chemicals, ditching, new species, and fertilising, were the means needed to increase the supply of wood (SCPF, 1983:14). In the following years the importance of these gradually diminished and in 1988 the following statement was included in the annual report.

"This pattern of development has now changed. The new philosophy is site adapted forestry, which means that conventional technical process and forestry methods are being replaced by a varied forest management, based on optimum species growth adapted to the various biological conditions.” (Skogsindustrierna Annual Report, 1988:16)
Arguments in favour of increased co-operation with the environmental movement were also presented and a number of new activities were introduced. "Serious conferences about silviculture are held. Such conferences did not take place ten years ago, and are probably still a unique activity in the global forest industry." (Skogsindustrierna Annual Report, 1988:16). There was however still a need of efficient forestry which was seen as a way to secure the future survival of the industry, so the balance between the old and new ways of thinking and acting was fragile (cf Rydin, 1988). In the 1990 Skogsindustrierna's annual report a dialogue was included between a representative of the National Society for the Conservation of Nature (Naturvårdsföreningen) and a representative of the forest industry. On most topics the two assumed similar standpoints and, even though not sharing the same opinion on all issues, both agreed that an open dialogue should be encouraged and continued (Skogindustrierna Annual Report, 1990).

The supply of West European markets

In 1983 the growing use of hardwood pulp based on eucalyptus was seen as a threat to the Swedish domestic production of both hardwood pulp (mainly based on birch) and softwood pulp. The overall use of hardwood pulp had been increasing since the 1950’s, and in a forecast published in 1982 the consumption of hardwood was predicted to increase in Europe by 69% until the year 2000, in which time softwood consumption was predicted to increase by only 44%. This development was mainly due to improved paper technology which opened new possibilities for the increased use of more hardwood pulp in various paper grades. The hardwood pulp producers from the south of Europe and South America thereby found new product groups in

198 Eckerberg (1987) studied the implementation of the Forestry Act from 1974 and a complementary penalty clause in 1979. Her findings were that foresters began to pay attention to environmental values already in the early 1980's. Finishing her study in 1987 she also notes the "recent colourful pamphlets on environmental considerations" (ibid 1987:4) produced by forest companies. To this we can add the changes noted at the industry level. From this limited information it seems as the change in environmental values followed a "bottom up approach" - the private owners, the forest companies and finally the industry associations.
which eucalyptus pulps could be used. Erik Sundblad, the CEO of STORA, concluded that:

"The increasing competitiveness of pulp from tropical and subtropical producers together with changes in customer production recipes has meant that Scandinavia is no longer the dominant supplier to West European industries and markets." (Sundblad E. 1983:1)

In the middle of the 1980’s hardwood pulp produced from eucalyptus grown in large plantations was in focus. The threat from hardwood pulp producers in the south of Europe and in South America suddenly became more than a marginal inconvenience. In ASSI's annual report in 1986 it was stated that Brazil was the market leader in pulp on West European markets that year which made the situation difficult for other suppliers who "experienced their existence as riding between heaven and hell." (ASSI Annual Report 1986:2). The prospects for the future showed no sign of improvement.

"Certain analysts forecast that Swedish pulp producers have no future because of the coming swing towards eucalyptus based pulp." (Löf, 1986:3)

Studies made in 1986 indicated a future threat from eucalyptus, but also concluded that, due to problems of infrastructure, know-how and labour, it would take a considerable time for substantial volumes of low priced pulp to reach West European markets. The speech given by Bernt Löf in 1986 foresaw capacity growth in Brazil, Spain and Portugal over the next five to ten years, but he also concluded that this growth was lower than that of the previous ten years. Jan Sture Enander, Executive Officer of SCA Teknik, concluded after a seminar examining the threat from eucalyptus forests in 1986, that improved forestry methods, increasing plantations and the use of species such as Pinus Contorta, growth could be improved in the Swedish forests. The growth rate would certainly never match that of Brazilian plantations, but it would be one way of reducing the differential (SCA tidningen, September 1986). A continuous specialisation on products based mainly on softwood, and production processes using the low Swedish energy prices would also increase future competitiveness.
"We must acknowledge the fact that pulp from southern plantations is providing an increasing percentage of the total global demand. But we still have time to change our production into less vulnerable product areas." (Rydin, 1988:7-8)

Future environmental research

Environmental research had been of great concern since environmental issues first appeared in the 1960’s. During the 1970’s the main focus was on air and water pollution around the mills, even if substantial efforts had been made to change to environmentally friendly production processes. In the 1980’s the focus started to shift.

"However, in my opinion, we have now reached a stage at which careful consideration must be given to how we are going to deal with these environmental questions in future. There are two basic reasons for this......" (Rydin, 1982:1)

The reasons Rydin gave were the substantial improvement of the environment around the mills which had already been achieved, in combination with the increased competition that was expected in the 1980’s. The P&P industry’s standpoint regarding this issue was formulated in its 1982 policy document, which stated that the ambition should now be to solve the remaining "identified" environmental problems, to the extent present technology and financial resources would allow (Skogsindustrin - en hörnen i svensk ekonomi, 1982:9). This became a statement frequently quoted and referred to throughout the 1980’s, and the exact wording of 1982 was still used in 1988.

"Environmental work within the forest industries continues unabated, as it has done for several decades, with the aim of solving any apparent and identified environmental problems." (SCPF Annual Report, 1988:12)

In 1983 priorities changed. Several research projects to study air pollution and its effect on the Swedish forests (acidification) were initiated. This was seen as the way to utilise limited resources in the best possible way.
"Although only limited damage to forests in Southern and Western Sweden has at this time been observed, it gives sufficient reason to instigate high priority research about any possible negative effects on the productive capacity of the forest, and how these may be counteracted." (SCPF Annual Report, 1983:13)

In 1986 a research plan was formulated in which acidification and pollution originating outside Sweden was regarded as the most important problem of the future. However the effect of the chlorine bleaching process, air pollution and the use of chemicals were also emphasised.

"80% of air born pollution in Sweden originates from other European countries. Obviously, the question must be asked, if it would not be better to use our activities and resources in the reduction of pollution emissions from our neighbours process industries." (Ahlgren, 1987:2)

A new issue that entered the debate in 1987/88 were the environmental effects of the chlorine based bleaching of pulp. In 1987/88 this and similar environmental issues were critically examined by the media practically every day. Environmental issues were a major subject of debate in the general election campaign of 1988, and the P&P industry was often referred to as amongst the worst polluters.

"Of course, much remains to be done by the Swedish forest industry to improve environmental conditions in and around the paper mills. But we resent the fact that the content of the debate is solely concerned with what has not been done. It is seldom mentioned that we are far in advance of all other countries regarding environmentally friendly processes." (Forssblad, Ncb Annual Report 1988:5)


200 The problem had been under investigation for some time, but it was only in 1987/88 that the issue became a vital part of the public debate.
Consequently, the industry had to continue and intensify its efforts to reduce pollution from the production process. At the same time information efforts were being intensified.

"Unfortunately, it can now be seen that the forest industry during the summer (1988) has lost a great deal of credibility with the media during the increasingly intense environmental debate. Obviously, little understanding or consideration was given by the media or the public to the considerable environmental investments and measures already undertaken to reduce toxic emissions into the air and water....Vigorous efforts must be made, together with member companies, to pursue centralised research and P.R. measures in order to clarify and explain the position of the industry, and to improve its public and media image.” (SCPF, 1988 September 13).

Two major problem areas were identified. The first was that the production process and paper products were seen as environmentally hazardous by the public despite the fact that paper is probably one of the most environmentally friendly products in existence. The second was that companies within the industry did not pursue any joint policy on environmental issues which repeatedly led to non co-ordinated actions.

1988 showed an emerging pressure from consumers. Earlier, the public had often expressed an interest in environmental issues but this interest was hardly reflected at all in consumer preference. Instead the government had reflected public opinion by the introduction of regulatory measures.

"When environmentalists in Sweden, quite arbitrarily, began to classify various paper products as environmentally-friendly or not, depending on the proportion of chlorine bleached pulp used in the product, this had a very powerful impact on the market. Those papermakers whose products were not included in the lists of so-called "environmentally-friendly paper", compiled by the retail trade, very soon lost market shares” (Wergens, 1989:6)

The results of increased efforts to reduce pollution in the production process were overwhelming. Aspa in the Munksjö group introduced a
new chlorine free pulp grade in 1989/90 that quickly became a success on the market. Aspa and Södra (the latter, an early follower) were, as a result, able to increase the price for this new grade by some 40-80 dollars which made "environmentalism" a profitable business in the beginning of the 1990's. Another result was that both MoDo (1991) and SCA (1994) introduced new technologies which reduced pollution emissions to a minimum, the so called ecologically balanced mill.

These technical improvements came as a surprise even to the industry experts. Earlier statements from the industry about the huge technical problems involved in pollution control were thus construed by outside observers as excuses used to delay investments in costly equipment (Wergens, 1995).

The energy policy of the 1980's

One of the major issues of this period was that of the national energy policy. The availability and price levels of energy had been of crucial interest to the industry since the first oil crisis of 1973, and following the second of 1979, the energy consumption pattern of the industry gradually changed. Overall consumption decreased and the dependency on oil diminished. Instead, the use of electricity generated mainly by nuclear power increased. Energy became a controversial issue since government policies did not favour efforts to reduce consumption or to change consumption patterns. The 23% increase in energy taxes in 1982 triggered the debate (Svensk Papperstidning, 1983:4).

In 1983 the industry contributed a total of MSEK 850 in energy taxes and in 1984 this figure increased to MSEK 1,100. The trade association argued that those taxes were excessive and that they should be allowed export exemption from VAT (Value Added Tax). In a speech Bo Wergens CEO of SCPF pointed out the energy savings made by the industry since the oil crises, particularly emphasising that these reductions had been substantial. He continued:

"The increases in energy tax levels have been substantial during the last few years. What has the pulp and paper industry done to deserve such accelerating punitive taxation? Has it not complied with the strategic energy policy aims formulated by the
Government?...Everyone present, and hopefully, the majority of the Swedish public are aware that no other industry has invested so heavily in energy saving measures, or has been so successful in reducing its oil consumption." (Wergens, 1984:9)

The reason for the increased attention given to energy taxation was obviously that these increasing costs affected the competitive strength of the industry on export markets, particularly since the Swedish P&P industry traditionally produced many energy intensive products, such as newsprint (cf Jaakko Pöyry, 1985).

In 1986 and 1987 the debate about energy and energy taxation changed. From being an immediate problem, attention now turned to the future availability of low priced energy. The debate was fuelled in 1987 by a government proposal that two nuclear power reactors should be shut down by 1996. Yet again the competitive advantage of "energy intensive products" became threatened (Wergens and Lundin, Svensk Papperstidning 1986:18). Several investigations concerning the effects of the closure of nuclear power stations were made. One report, accepted by the industry, predicted that electricity prices would increase by more than 120% during the period 1996-2010 (SCPF Annual Report 1987:8-9).

"Electricity generated by wind power and bio-fuels cannot supply sufficient quantities at prices acceptable to the forest industry. What will power our paper machines when the wind does not blow?" (Ahlgren, 1987:8)

In June 1988 it was decided that two nuclear reactors should be closed down as suggested in 1987. This decision was commented upon by the trade association as follows:

"The uncertainty concerning the supply of electricity can soon lead to a decrease in the will to invest in industries with substantial power requirements...In some cases planned expansions in Sweden have already been postponed, and there are, at present, no new investment projects." (SCPF Annual Report 1988, page 10-11)

201 Oil represented 40% of total fuel use in the industry in 1975 which was reduced to 15% in 1986. (SCPF Annual Report 1986:13)
The uncertainty about the future energy supply became an important factor when major investments and mergers took place. SCAs investment in a LWC machine in Ortviken and MoDo’s acquisition of Holmen are two examples of this (Svensk Papperstidning, 1988:1, 1988:9).

The debate concerning the phasing out of nuclear power continued, and the potential alternatives to nuclear power once again became part of this. One alternative examined was the use of forest products in energy production. Forest waste products, residues and plantations of fast growing species were some alternatives discussed. The trade association’s view was, as before, that forests should primarily be used for sawn timber, pulp and paper. The possibility of using biofuels as a substitute for nuclear energy was seen as unrealistic (Wergens, 1989b)

”The suggestion that bio-fuels could provide the main alternative to nuclear energy can be dismissed out of hand, as any future bio-fuel supply assumes artificially high price levels. This would seriously damage the forest industry’s ability to compete for the supply of raw material, and thus be of economic detriment to Sweden.” (Skogsindustrierna, Annual Report 1989:24)

The intensity of the energy debate slowly diminished in 1990 as the Swedish government decided to postpone the phasing out of nuclear power.

The exchange rates uncertainties

In Jaakko Pöyry’s report to the Ministry of Industry of 1985, one part, entitled, "Competitiveness today does not only depend on the dollar exchange rates” (1985:27) discussed the relationship between Swedish competitive advantage and the value of the Swedish

---

202 LWC stands for Light Weight Coated paper. This quality is, for instance, used in mail order catalogues.
203 At the time Jaakko Pöyry was the largest and most well-known consultancy firm in the industry. They were, for instance, well known for their multi-client reports on future market trends.
As indicated by the title the currency exchange rates at this time were of vital importance. These had been of growing importance since 1971. During the period 69-82, the value of the Swedish krona initially increased in relation to the US dollar, which lowered the competitive advantage of the Swedish P&P industry. After the Swedish devaluations of 1981 and 1982 the situation changed. Exchange rates were now favourable to the Swedish pulp and paper industry. Industry experts were not, however, impressed by this.

"I would, however, give a word of warning to those paying too much regard to the present favourable exchange rates. The Swedish forest industry remembers only too well the exchange rate conditions which existed during the greater part of the 1970's, where the situation was reversed, and our North American competitors had an important cost advantage." (Rydin, 1983:7).

"Regarding the next few years, the Swedish forest industry must endeavour not to allow any decrease in our present competitiveness by squandering the remaining effects of devaluation, and allowing higher inflation than in the rest of the world.” (Forssblad, 1985:10)

Forssblad reflected the general opinion that these devaluations gave a respite, but in order to establish a long-term competitive advantage for Sweden the basic conditions must be changed (Svensk Papperstidning 1983:12). In 1987 exchange rates were once again seen as a major problem. Bernt Löf reported at the shareholders annual meeting of MoDo in 1987 that demand growth was satisfying but that the situation was still unstable.

"The reason is principally the ability of the Swedish pulp industry to compete. As a result of the fall of the dollar exchange rate, our competitors, mainly in North America have suddenly been given an important competitive advantage.” (Löf, 1987:2)

204 When the investigation was made in late 1984 the value of the Swedish krona was 8.35 to the US dollar. When the conclusions were drawn in March 1985, the value of the krona was 9.35 to the US dollar. Jaakko Pöyry concludes that competitive advantages were changing rapidly.
Not only changes in exchange rates were blamed. Löf also examined general cost increases in Sweden. Compared to Canada, costs were increasing far too rapidly. The internationalisation of production during the latter part of the period also reduced the influence of exchange rate fluctuations.

"There is an old - I nearly said antiquated - idea that the forest industry is dependent upon the strength or weakness of the dollar. This no longer applies to the same extent as before, as STORA is selling an increasing amount of various products in currencies other than the dollar." (Berggren, 1987:9).

The change was partly due to the increasing internationalisation of production. The demand of the EEC commission in 1985 that pulp must be sold in local currencies also contributed to the change.205

These changes, together with the increasing familiarity of trade in different currencies helped to reduce the negative effects of fluctuating exchange rates. (Månsson, 1989)

**The changing forecasts**

The devaluations of the Swedish krona in 1981 and 1982 were of substantial help to the industry. Overall demand in the 1980’s was however predicted to be sluggish and particularly future demand for newsprint was questioned.

"With regard to the future for newsprint and magazine paper it is more difficult to come to any definite conclusion. An international survey carried out by SCA some time ago indicated that demand for newsprint would eventually stagnate in the industrialised countries with the greatest present consumption, whilst a relatively sharp increase could be expected in the rest of the world. There is therefore reason to expect that future demand growth for many of our products will be relatively low, partly because of the above mentioned factors,

205 Either in the currency of the exporting or importing country.
and partly due to lower overall growth which most economists agree we can expect soon.” (Rydin, 1983:2-3)

A similar forecast was made by Erik Sundblad in 1983. He stated that because demand for newsprint and magazine paper was so low the building of a new paper machine at the Kvarnsveden mill had been postponed. “First towards the end of this decade, we may be able to motivate the installation of the new machine which we have planned and prepared.” (Sundblad E. 1983:3)

Reports upon overall future prospects were made by the Board of Technical Development in Sweden (STU information 1983:357) and Märta Josefsson (1984), a financial analyst. In both these reports the general assumption was that demand growth could vary from 0.9% annually for newsprint, to some 4% annually for magazine paper (LWC and SC grades) (STU information 1983:357). The data used in these and many other similar reports was based upon the United Nations’ regular survey of 1982 (FAO, 1982). This predicted a general slowdown in growth as well as a gradual shift from softwood to hardwood pulp.

These reports were based on the belief in the intimate relationship between GDP growth and growth in paper consumption. In the 1960's the growth of paper consumption was faster than the growth of GDP and in the 1970's the growth of demand for paper products was 2% annually whereas the growth of GDP was 3% annually. In the 1980's the trend was predicted to again be lower (Josefsson, 1984). Even so, GDP was seen as the most reliable indicator of the future demand for paper. "GDP is the economic figure which best explains variations in the consumption of paper.” (Jaakko Pöyry, 1985:15)

In the same analysis Jaakko Pöyry estimated the GDP growth in Western Europe to 1.3% per year, during the 1980’s. This figure was less than 50% of the growth in the period 1965-1980. Jaakko Pöyry estimated the increase in demand for paper to some 2.2% annually until the year 2000. Newsprint was predicted to have the lowest worldwide growth rate, 1.8% annually. In Western Europe the growth of newsprint was predicted to 1.2% annually during the period 1983-

---

206 This belief held by many industry experts will be discussed further in chapter six.
2000 (Jaakko Pöyry, 1985). Figures and with them scenarios for the future were soon revised. In 1986, FAO made a long-term prognosis for the period to 1995 (FAO, 1986). A review of this forecast ends with the following words:

"The FAO forecasts support other indicators which show that the pulp and paper industry is a growth sector which will require large increases in production capacity in order to satisfy future demand increases in the order of 59-68 million tons until 1995, of which two thirds will come from the industrialised world." (Wohlfart, 1986:9).

The assumption was that the demand for newsprint was going to grow world-wide by about 3% annually until 1995. In Western Europe the growth was estimated to 2.4% 1982-1990 and 2.6% in 1990-1995. Other actors in the industry had also revised their opinions about the long-term growth of paper products.

"We have given particular attention to newsprint, in view of fears expressed regarding the future of newspapers in the age of IT technology. Both our own, and independent consultants research studies conclude that it will be many years before any stagnation in the demand for newsprint will be experienced." (Rydin, 1984:2)

Some top executives could maintain that they stood firm when forecasts changed.

"Plastic was going to replace paper in newspapers. New telecommunication technology would allow the introduction of new newspaper concepts. TV would supply all information. The predictions of visionaries influenced the paper producers of the world. Some chose to diversify into other products. Others postponed investment

---

207 In a report to the Ministry of Industry in 1977, Jaakko Pöyry predicted the increase in demand for newsprint to be somewhat more than 1% annually during the period 1973-1990, in this respect the forecast of 1985 followed the forecast of 1977 (Jaakko Pöyry, 1977:30).

208 In the report the term "developed markets" was used. In the Jaakko Pöyry reports the demand zones were slightly different. This probably explains some of the variances in the conclusions.
projects. Holmen, on the other hand, never had any doubts about the future of newspapers - even forecasting a continuing growth in demand for newsprint.” (Zetterberg, 1985)

The reason for this shift in the view of the future was the increase in demand that occurred in the US in 1983. which, combined with the changes in exchange rates, made the future much more optimistic for Swedish producers. Bo Wergens (CEO of SCPF) commented on this change in demand and the subsequent reversal of pessimism to optimism in a speech and concluded that; "We can only state that our sector shows the same quick changes as a slide show.” (Wergens, 1984:1) Naturally, it was only a few years before the next downturn was predicted. In 1986, David Clark, CEO of EPI, issued a warning against exaggerated optimism. His message was that the cyclical nature of the market should never be ignored. Following this cyclical pattern, 1987 and 1988 were years when a recession could be expected (Svensk Papperstidning, 1986:6). In 1987 the competitive advantages given by the devaluations at the beginning of the decade had disappeared.

"In the last few years our competitive position compared to the North American industry has become seriously weakened. Our market is cyclical. Market conditions and demand have, during a comparatively long period, been extremely favourable. We, within the industry, know that market changes can occur relatively quickly. It is the external conditions which we are unable to control.” (Wergens, 1987:9)

In SCPF’s annual review of 1988 difficulties in predicting demand growth were once more confirmed. In 1988 demand increased by 5%, which exceeded all predictions. Capacity utilisation was almost 100%. This growth in demand continued in 1989.

A wave of ownership restructuring
The concentration on production rationalisation in the 1960’s and 1970’s changed into ownership restructuring in the 1980's. Within a few years, large and apparently solid and well established independent companies such as Uddeholm (1978), Billerud (1984), Nymölla AB (1985), Holmen (1988), Papyrus (1986) and Iggesund (1983-88), were all taken over by other companies.
The reasons given for this sudden concentration of ownership were not the same as those used in earlier rationalisation phases. When motivating STORA’s acquisition of Billerud in 1984, Bo Berggren used the phrase, "Lighten each other's burdens." He was stressing the importance of the large financial investments necessary in the industry most of which were highly uncertain, and a failure could lead to bankruptcy for many minor companies. He therefore argued that:

"The merger of STORA and Billerud creates a company of sufficient size to be able to accomplish a consecutive renewal of production facilities without causing any disruption in company activities.”

(Berggren, In samtal om STORA, 1984:29)

The conclusion to be drawn from this statement is that companies must be of such a size to enable them to undertake large investments on a regular basis. Acquisitions that could allow this were not motivated by immediate synergy effects. Consequently the few overlaps in product areas that occurred were seen as a further strength since the ”industrial base” was broadened. Bo Berggren explained that prior to the acquisition the industrial base of STORA was not strong enough in an international perspective even though STORA was one of the largest companies in Sweden before the acquisition of Billerud (NWT, 1984 September 26).

Just a few years before this merger, STORA and Billerud had been involved in a take over battle for Iggesund. This takeover did not succeed, and instead, a merger between Iggesund and MoDo occurred. The recession of 1978-1982 increased speculation about ownership restructuring. At that time the companies mainly concerned were controlled by forest owner associations but the restructuring ideas without doubt inspired the further wave of ownership restructuring in the 1980's.

Following these domestic mergers, increasing international takeovers were seen. In 1987-1988 Swedish companies acquired twelve companies within the EEC, mainly covering product areas such as tissue, paperboard and corrugated board, all areas in which competitors from the US were showing an interest. In 1988 SCA acquired five companies in France, Italy, Austria and Belgium. These produced hygiene products, corrugated board (including testliner and fluting) and printing paper. In SCA's annual report of 1988 this was
seen as a natural evolution. SCA was carrying out their strategy of reducing the effects of business cycles by moving closer to end users.

"This market-oriented strategy also leads to a considerably more expanded presence in our main markets, the countries of Western Europe. Following the extensive capital expenditures of the last decade, particularly the modernization and expansion of the forest industry installations in Sweden, we have now entered a phase where an active market presence has a more prominent role.” (Rydin, SCA Annual Report, 1988:2)

Companies previously reluctant to internationalisation were forced to take this growing trend into consideration. Rune Brandinger, CEO of Södra, for instance argued in 1988 that Södra had come to a crossroads. Alternative ways of expanding their operations were considered, as was the status quo alternative. The latter was seen as unrealistic since their market share would decrease and the company’s ability to influence future forest policy in Sweden would diminish (Brandinger, 1988). Overseas expansion through joint ventures was seen as a more attractive alternative.

This wave of acquisitions was concluded by two major takeovers in 1990 when STORA acquired Feldmuhle in Germany for SEK 18.3 billion and SCA acquired Reedpack in England at a price of SEK 9 billion. The Swedish P&P industry acquired 26 companies in Western Europe during the period 1987-1990. In the trade association’s Annual Report this was commented upon as follows:

"Increased internationalisation is the natural result of the aims of higher added value and integration of the distribution chain. It allows, at the same time, the company to achieve closer market contact, to avoid intermediaries and agents, and thus be more directly aware of customer requirements and demands.” (Skogsindustrierna Annual Report, 1990:26)

Internationalisation and forward integration was not only motivated by the need for international regroupings. In 1988, when changes in the Swedish energy policy were debated, the trade association stated that the future of the industry in Sweden was threatened. "In some cases expansion plans in Sweden have been postponed or shelved, and there
are presently no new projects planned.” (Skogsindustrierna Annual Report 1988:11). Similar statements were made by other top executives of the industry, who considered the unfavourable business climate in Sweden, together with the uncertainty about the Swedish relationship to the EEC, compelling reasons for Swedish companies to refrain from investments in Sweden (cf Brandinger, 1988:8).209

"Disregarding the fact that there is no acute need for any large project we consider that the risk level is unacceptably high if we were to invest at this time in a large expansion of our Swedish operations. This is because of the uncertainties concerning the Swedish membership of the E.U., the current energy policies (or lack of them), and environmental demands.” (Löf, 1989:6)

A further argument for internationalisation was the need to take part in international regroupings. This reason was most prominent in the two latest acquisitions by STORA and SCA. Bo Berggren, CEO of STORA, underlined the urgency of being part of the international restructuring process at the shareholders annual meeting in 1990.

"The acquisition of Feldmuhle Nobel is an essential step towards the restructuring of the European forest industry. We have observed national restructuring in Sweden, Finland and the US, where the peak of this process has now been reached, but is now being followed by regional restructuring in Europe and North America which, in its turn, is leading to signs of global restructuring. The driving force is the need to create large and efficient production structures.” (Berggren, 1990:9)

Similar arguments were presented by MoDo when acquiring Iggesund and Holmen. In the prospectus of 1988 words and phrases such as, size, broad spectrum of growth products, extended geographical spread, risk reduction, and efficient use of forests and financial assets, were used. The list ended with a reasoning which was similar to the one given by Bo Berggren above.

"Yet another factor in favour of the merger is the credibility level

209 Obviously this also included the debate about future energy policy in Sweden.
Swedish companies must attain to enable them to participate in international industrial development i.e. joint ventures with the largest North American companies.” (MoDo, prospectus 1988:8)

SCA’s acquisition of Reedpack was justified by applying the same reasons. Another important argument put forward was that of the increased supply of raw materials, as Reedpack was one of Europe’s largest producers of recycled fibres, which reduced SCA’s dependency on virgin fibre as a raw material. SCA foresaw a future in which the availability of recycled paper could cause a dramatic shift in the localisation of the P&P industry. The decision to rebuild the Ortviken mill in 1990, changing from newsprint to LWC, was also partly motivated by this increasing use of recycled paper in the production of newsprint (Martin-Löf, 1988).

Following the large investments made in 1990 the three dominating companies in the industry foresaw a more stable development, a period in which the financial base of the companies could be rebuilt. In the last month of 1990 a totally surprising development occurred. Matts Carlsgren, chairman of the Board of MoDo and also a spokesman for the owning family, sold his stock holding of shares in MoDo to SCA. This stock represented some 32% of the votes in the company and in practice they were used by the family to control the company. In 1991 MoDo thus became a company with three large owners; SCA, the former owning family, and Lundbergs. The latter was a family controlled construction company that had been acquiring shares in MoDo for some time.

In the beginning of the 1990’s the P&P industry was thus dominated by two major companies, SCA and STORA, since MoDo, the third largest company was partly owned by SCA. The rest of the P&P industry consisted of specialised medium sized companies such as Södra (market pulp) and ASSI (sawn timber and packaging products). In addition to these there were a number of smaller companies. Following the wave of international takeovers the greater part of the operations of the P&P industry were outside Sweden.

---

210 Initially SCA aimed to acquire Feldmühle but the price and the conglomerate structure of the company made SCA reluctant, particularly when STORA entered the bidding (Martin-Löf, 1990). A few months later the acquisition of Reedpack took place.
"I would stress that the forest industry is not leaving Sweden. But the process of internationalisation which has been taking place for some years is now accelerating rapidly. Players in Western Europe are increasing in number, and they come from all over the world. We must accustom ourselves to the concept of a society without boundaries." (Löf, 1990:4)

4.6.3 1983-1990 - The issues

The increasing costs/regulations in Sweden
In the early 1980's, at the end of a period of low profitability, it is not surprising that profit margins became the main subject of attention. One tactic used by the industry was to try to change government policy and influence public opinion by arguing that the only way leading to future prosperity in Sweden would be if the government engaged in a dialogue with the industry. The industry emphasised the fact that because the P&P industry was the backbone of the Swedish economy, policies leading to increasing costs of wood and labour, together with increasingly complex regulations and other obstacles, was an industrial and national paradox.

Organisational forms of co-operation
At the end of the 1980’s the restructuring of the industry had resulted a new ownership structure which encompassed a wide spectrum of companies - from international giants to small specialised niche producers. Traditional co-operation concerning research as well as other industry wide issues were questioned. This restructuring process gradually reached the co-operative structures in the industry. The survival of one of the main driving forces behind the technical development of the industry, the joint research institute, STFI, came into question during the latter years of the period. The issue of co-operation within the trade association and how it should be organised resulted in considerable discussion.

West European co-operation
The debate about the joint arrangements emerged in the same period
as international trade arrangements changed. In 1984 free trade arrangements with the EEC became operative and the need for a policy of mutual understanding between Nordic and West European industries came into focus. Mutual understanding was not so easily achieved as the Nordic producers expanded their production of printing and writing paper, resulting in accusations of dumping and price fixing.

The decision taken by the EEC in 1986 to attain the goal of the single market was the next reason for renewed Swedish anxiety. The Swedish P&P industry publicly announced the need for full membership of the EEC shortly after this, and the campaign in favour of Swedish membership continued until the final decision was taken in 1994 (following the general referendum).

The ongoing liberalisation of trade was thus a vital issue in the 1980’s. The issue was now divided: how Swedish industry could best meet the new policy of liberalisation in the EEC, and how it could encourage an international climate favouring the paper industry based in Sweden.

The low volume of fellings
In the section covering the period 1969-1982 recurring concerns of an approaching wood shortage slowly changed into the necessity for increased fellings, which became a major issue during the period 1983-1990. Obviously, the importance of this reflected the need to reduce wood costs. The increase in fellings that took place in 1986 and 1987 were combined with increasing demand and prices for the final products, but a general deregulation also opened up future prospects of lower price levels, and consequently these increases were considered a less acute problem.

Forestry methods
Environmental issues were of substantial importance to the pulp and paper companies in this period. The changes in environmental legislation proposed by the government in 1980 continued to be of great concern and the debate only ended in 1986 when the government proposed new legislation.

At this time the debate about forestry methods that had been taking
place since the end of the 1960’s changed direction. The industry's view suddenly changed from its stance that only production oriented forest methods could be used, to a more environmentally friendly policy. This was a step applauded by the environmental movement even if they continued to oppose some of the forestry methods still used.

**Pollution in focus**

Intimately connected with this issue, was the future of environmental research and the pollution of water and air. In 1983 the general opinion within the industry was that the investment rate had to slow down due to low profitability and uncertainty about the future. Increased efforts to satisfy the environmental concerns about pollution of the forests were also made in the period 1983-1990. Public opinion forced the industry to radically increase its efforts within the mills at the end of the period. The debate about chlorine usage in 1988 forced the industry to invest heavily in environmentally friendly pulp production processes, efforts that mainly paid off in the beginning of the 1990’s. As the industry continued to face high costs for environmental protection, the issue was; how could these costs be reduced?

**The challenge from hardwood pulp**

An issue relating to competition, was the threat from the new pulp producing countries entering the pulp market which were taken very seriously at the end of the 1970’s and in the early 1980’s. Technological improvements would allow the increased use of hardwood pulp in many areas, in competition with both Swedish hardwood pulps, and also with the Swedish speciality, softwood pulp. How far could this development continue? Could softwood really be substituted by hardwood in the future?

**Recycle - do not burn!**

The use of recycled paper in the industry seen in the period 1969-1982 continued to grow, particularly since the increased utilization of recycled paper became an important environmental issue. However, the supply of recycled paper became threatened during this period and the scenario reverted to that of the 1970’s, since recycled paper
began seen as an alternative source of energy. The threat became increasingly important to the P&P industry in view of their large investments in recycling technology and the establishment of a recycling infrastructure.

Fluctuating exchange rates
As was seen in the 1970’s fluctuating exchange rates were also of great importance to the P&P industry in the 1980’s. The sluggish situation in 1980/81 changed as a result of the devaluations of 1982/83. Industry experts questioned the long-term effects these would have, and exchange rates continued to be a matter of the greatest concern to leaders of the industry. The internationalisation towards the end of the period reduced the importance of this issue.

The supply of energy
Although the debate on energy taxation continued during the 1980’s the proposed phasing out of nuclear power towards the end of the decade gave rise to another, more immediate and perhaps more important threat. The main concern was the increase in energy costs, one of the most basic costs of production. The issue became even more complicated as a result of the public debate which resulted in suggestions to use recycled paper and the increased use of biofuel (i.e. wood) as a substitute for nuclear power. As discussed above both alternatives constituted a threat to the P&P industry since they would inevitably result in increased energy costs, and the main question remained - how should this threat be countered?

Figure 4.10. The issue chart 1983-1990
5. Issues, labels and solutions

The issues, summarised in the concluding sections of chapter four, are now analysed according to the methodological ideas developed in chapter three. The labelling of issues follows the dichotomy of threat and opportunity. Issues are also combined with solutions as they emerge in speeches, articles, annual reports and investigations (section 3.3).

The issues, their labelling and their solutions reflect situational beliefs. Depending on the context - both in time and space - the industry debate tends to follow different directions. The issues addressed, if these issues were perceived as threats or opportunities, and connected to solutions, depend on the changing contextual situation. Thus, the beliefs that develop from this process are situational.

The time periods used for the presentation of the case are, as discussed in chapter three, only included in order to structure the data.
They are now removed to give a better overall view of the processual development of the industry debate. Moreover, the reconstructed issue chart reveals that issues are more or less related throughout time. During the period 1945-1990, sixteen issues stand out as being distinct. These issues will be further reviewed in the following.

Figure 5.1. The issue chart, 1945-1990 (opposite page)
5.1 Issue analysis

1. The increasing costs and regulations in Sweden

The predominant view at the end of the Second World War involved reinstating the relationship between government and industry that existed prior to the outbreak of the war. The social planning that characterised post-war development, focused on the development of a financial policy that would prevent the reoccurrence of the recession after the first world war. However, the means implemented by the government failed, as the economic cycle developed in an unpredictable manner.

In 1945-1959 the first two issues (issue no. 1 and 2) focused on government actions that counteracted policies demanded by the P&P industry. Therefore, the government was seen as irresponsible in their
neglect of the P&P industry's needs, which it considered as crucial for the future of Swedish society. The solution to the issues at hand materialised during 1945-1959 in the form of negotiations between the trade associations and the government. One alternative to increasing labour costs was to rationalise operations. During the first decade after the war, rationalisation mainly took place in forestry.

In the 1960's, criticism of government regulations was not as outspoken as in the previous decade. Criticism regarding the ever increasing costs in Sweden was, however, frequently expressed. An important reason for this was the over supply of pulp and paper, which lowered market prices and reduced margins. As a result, a firm belief in solutions such as rationalisation, large-scale production and mechanisation gained acceptance.

In the 1970's, the issue developed into a broader criticism of government control, administration and economic policy. The regulations and laws enacted by the authorities reduced the industry's capacity to manoeuvre. Moreover, the frequent change of policy was a major source of uncertainty. Energy taxes, wage increases and imposed investments directed towards reducing pollution were all societal restrictions that reduced the ability of the industry to compete internationally. It became urgent to find a solution as several companies faced bankruptcy in the late 1970's. The mistrust in the economic policy forced the industry to initiate campaigns which aimed at informing the authorities of the role of the forest industry in the Swedish economy and the obstacles the industry faced. Thus, increased distribution of information and lobbying were seen as solutions to complement ongoing rationalisation, large-scale production and mechanisation.

Criticism continued in the 1980's, despite the fact that the industry benefited from both devaluations and a prolonged period of increased demand. However, the main problem perceived now was the absence of stability in government policies. The fear of a reversion to the situation that prevailed at the end of the 1970's was also frequently expressed. Even if the 1980's were prosperous, cost levels were still regarded as far too high in Sweden. The wave of internationalisation of production that took place at the end of the decade was added to the list of solutions.

Industry experts agreed amongst themselves on the importance of the issue, the labelling and the solutions needed, i.e. there were no
divisions concerning this issue within the industry. The view adopted by industry experts was that the government had misjudged the severity of the problems and repeatedly made mistakes when implementing economic policies. Industry experts acted to persuade politicians of the importance of the issues and the changes necessary. In other words, they acted on behalf of their companies and the industry to gain collective influence within the societal arena.

**Issue**
The increasing costs in Sweden. The overall economic policy pursued by the government counteracted the industry development. The frequent changes in regulations, taxations and policies made long-term planning impossible. The need for stability was urgent.

**Label**
The general cost level, government policies and the lack of a long-term perspective constituted a threat to the development of the P&P industry in Sweden.

**Solutions**
- Negotiations with the government.
- Mechanisation, rationalisation and large-scale production in order to reduce costs.
- Informational activities and professional lobbying to persuade the public and the government.
- Internationalisation of production.

**2. How to achieve a stable market balance**
The second issue focusses on the attempts made to reach a market balance and thus reduce the effects of business cycles. The direct reason for the negotiations between market pulp producers in the 1950’s was the turmoil following the Korean crisis in 1953 and the extensive expansion in capacity in North America in 1958. However, negotiations between producers continued on a regular basis. The negotiations of 1958 set the stage for the 1960’s, during which large increases in capacity in North America emerged as the major problem. The difference between this period and the 1950’s was an
imbalance in the demand/supply ratio which was mainly the result of
internal industry actions, i.e., the introduction of new production
capacity. In the early 1970’s, the problem resulted in an inadequate
supply of pulp and paper, due to the shortage of wood. Within a short
time this situation had become reversed, with a low demand for pulp
and paper and, in turn, a low demand for wood. The Swedish P&P
industry lost market shares at the end of the 1970’s and it was not until
the 1980’s that the market balance issue faded into a minor problem, at
which time a new period of growth in demand had started.

Until the beginning of the 1980’s, co-operation had been the solution
to the market balance issue. Co-operation, aiming to regulate
production and price levels was frequent, both on the domestic and
international markets. In the 1970’s this solution increased to include a
desire for co-operation in investment planning.

Co-operation was, however, a short-term solution. A more long-term
solution was the change towards more value added products. The
change towards consumer-oriented products was one way to avoid
frequent shifts in demand in the bulk markets. It was also believed that
a shift from market pulp to the production of tissue or printing and
writing paper would reduce fluctuations in demand and increase
margins. In the 1960’s and the 1970’s, unrelated diversification
was finally believed to be a way to avoid fluctuations in demand and thus
to attain a more balanced development.

This issue disappeared during the 1980’s. As many co-operative
initiatives were forbidden by EEC legislation, one can interpret the
situation from two angles, either that the industry abandoned their old
cooporative solution or they acted in secrecy. Whatever the
explanation, the issue lost importance as high demand and thereby
high capacity utilisation increased profitability.

To make sense of the labelling and solutions offered to this issue are
difficult. The controversy between Gunnar Sundblad and Sverker
Kastrup in the 1950’s reveals that different opinions existed within the
industry regarding its solution. Ewert Landberg’s proposal for a more
centralised sales organisation in the 1960’s also represents an attempt
to resolve this issue. Attempts to increase co-operation to include
investments in new capacity were made on several occasions but
repeatedly resisted by influential experts in the industry (see chapter
six).
Issue
The sharp fluctuations in demand and the consequential problem of reaching a stable balance between supply and demand.

Label
The unpredictability of fluctuations in the market balance was a problem as long-term planning was difficult. The increasing uncertainty due to these shifts was a threat to the long-term development of the industry.

Solution
- Co-operation in pricing and volume outputs.
- Co-operation in investment planning.
- An emphasis on increasing value added and thus more consumer oriented products.
- Diversification.

3. The international trend towards trade liberalisation
Protectionism was a major obstacle to trade in pulp and paper products prior to the Second World War. In the 1950's, the free trade issue entered the international agenda. In chapter four this trend is illustrated by the Marshall plan and the formation of the EEC and EFTA.

The change from a protectionist system to a free trade system was not easy to implement. The Swedish P&P industry was intimately involved in many complicated negotiations. The trade association acted mainly as an expert, assisting the government’s official negotiators. In the 1950’s attempts to reduce trade barriers were seen as an opportunity for the P&P industry. Free trade was considered beneficial in the short term, as the P&P industry’s competitive strength increased. In the long term, benefits would result from the integration of the production of pulp and paper.

In the late 1950's and the 1960's, optimism decreased as Sweden decided not to apply for membership in the EEC. This decision, together with repeated attempts, especially from Great Britain, to leave EFTA and enter the EEC, made the trend towards free trade a potential future threat. The P&P industry met this change by negotiating directly
with the industries in the West European countries. The "live and let live" policy developed as a means of reaching a reasonable sector specialisation between Scandinavia and Western Europe. Gradually, information became an important factor in this delicate situation. The P&P industry came to realise the value of releasing correct and factual information regarding the existing situation, to West European governments, competitors and customers, which made this process easier.

In the early 1970’s Sweden eventually reached an agreement regarding its long-term relationship with the EEC. As an effect of this agreement, the content of the issue changed. As the agreement was confirmed in 1978, the strategy was to mobilise West European industries to meet the mutual threat from North American competitors. Several initiatives, among them the foundation of EPI were taken, to persuade Western European industries of the importance of meeting the potential North American invasion. Information and lobbying became important means to further this strategy.

In the 1980’s a free trade status was reached between Sweden and the EEC countries, but the “live and let live“ idea still survived. However, it was apparent from speeches, that a fear of the political forces in the EEC still existed. As the EEC decided to implement the Single Act Agreement in the middle of the 1980's, a threatening situation once again emerged. Information and lobbying were again used to make politicians aware of the importance of this threat. However, in the 1980's the internationalisation of production proved to the authorities that the industry intended to act on its own. If Sweden decided to remain outside the EEC, the companies in the P&P industry, showed how they quickly could become “members” on an individual basis.

As in issue one, the industry acted in the societal arena even in this case. It was their aim to make the authorities, both in Sweden and abroad, understand the importance of free trade, as well as to convince them of the best way to proceed in order to attain this goal. Gradually, awareness grew of the importance of conveying their message to the general public. Experts in the industry agreed upon the importance of the issue, even though many of the products were not severely affected by the trade barriers (i.e. as were market pulp and newsprint).
**Issue**
The international trend towards trade liberalisation will probably change trade patterns in Europe.

**Label**
If trade barriers are reduced it will increase the competitiveness of Swedish P&P industry in both the short and long term-perspective, i.e. the issue must be labelled as an *opportunity*. In occasional setbacks, advantages earlier gained could be lost, the issue then became a *threat* to future development.

However in the 1980's, trade barriers could also prevent the North American industry from becoming an influential player in Europe. The vital issue now was how to activate the EEC industry to obstruct this "foreign" entrance.

**Solution**
- Expert role when Sweden negotiates trade conditions.
- "Live and let live" policy in negotiations with the EEC industries.
- Increased information efforts to mobilise opinion in the EEC.
- Reluctance towards integration efforts in Sweden, to avoid disturbing the international pulp market in the short term.
- The foundation of EPI.

4. **Organisational forms of co-operation**
Possible structures for industry co-operation were an issue of importance in 1945-1958. Changes in legislation together with different ambitions can be seen as the main reasons. In the early 1960's the organisational forms for co-operation were debated within the trade association. At that time, international free trade negotiations, combined with the difficulties of sustaining the balance of demand and supply, governed the overall situation. Initiatives to extend co-operation through the strengthening of the trade association were suggested (mainly SPF). That is, the common conception was that a strong trade association could simplify trade negotiations and be able to deal with the problem of the oversupply of pulp. This initiative
was, however, rejected by a majority of the member companies. Co-operation in the planning of capacity increases was also proposed in the 1970's as a way to reduce the acute shortage of wood. Despite the fact that organisational forms of co-operation disappeared after the 1950’s as an issue on the issue chart, initiatives to extend co-operation developed as solutions to other issues emerging during the period. As an issue in itself, organisational forms for co-operation once again appeared in the debate during the 1980's. This renewed interest in organisational forms for co-operation is further discussed in issue thirteen below.

**Issue**

How should the co-operation within the industry be organised? Which subjects should be included in co-operative structures?

**Label**

Co-operative arrangements had a long tradition in the industry and joint actions offered solutions to several important problems. The united front in the industry was however questioned when organisational forms for co-operation entered the debate as an issue in itself, i.e., the debate about the extent of co-operation was a threat to the unification of the industry.

**Solution**

The solution was to gradually change organisational forms for co-operation in order to follow legislation and to attain consensus within the industry.

**5. The supply of wood**

The 1940’s was a period in which the belief in an approaching shortage of wood dominated the debate. At the end of the decade, other optimistic views about the future supply of wood were expressed. Those opinions gained strength as the findings of investigations were presented in the 1950’s. The major change that
emerged from the investigations concerned a regionalisation of the country. In the south of Sweden, an abundance of wood was reported, but in the North, a future shortage was still predicted. In view of the large growing stock of wood in the South, the discussion tended to focus on the shortage in the North and how rapidly this shortage would appear. The factor that was difficult to estimate was how quickly the industry could expand its capacity in the following ten years.

During the 1960's the problems of excessive supply in the south and the shortage in the north were still subject of debate. However, as investments in pulp production took place in the south the predicted surplus gradually disappeared from the forecasts. The predicted shortage in the north was still vital for future planning but the immediate focus was placed more on the high prices. The increases in prices led the industry to consider the importation of wood. Moreover, investments abroad in the 1960's were motivated by the need to secure opportunities for future capacity expansion. These solutions complemented those initiated in the 1950's i.e. a) improve production processes with higher yield as a result and b) more efficient forestry methods. The “industrial forestry”, i.e. large-scale forestry, including clear-cuttings, ditching, new species, fertilization and the use of herbicides, was implemented on a large scale during the 1950's and 1960's.

At the end of the 1960's, the uneven distribution in age of the growing stock of wood was recognised. The implications of this phenomenon were discussed at the same time as optimistic forecasts for a demand growth in pulp and paper were presented. Consequently, demands for investments to increase capacity arose. Following the increased optimism in market development the expected need for wood was predicted to increase substantially. At this time, the expansion in capacity in the south accounted for the disappearance of the surplus in this region. The result of this was an apparent shortage of wood.

The extreme situation in the middle of the 1970’s demanded immediate action. New, large, research projects were initiated as one part of the solution to the problem. Projects aimed at increasing the yield from wood and the usage of residues in the forests, were initiated. Other actions included the formation of a joint organisation to import wood, agreements regulating increases in capacity in
ongoing operations as well as agreements regulating investments in new capacity. These voluntary agreements did not always work out as intended. Partly because of this, the government enacted changes in legislation supporting the attempts to reduce the consumption of wood.

Gradually, the immediate need for wood subsided as the demand for pulp and paper slowed and consequently large increases in capacity were postponed. An economic crisis followed the arrival of the recession in the late 1970's. As a result, the issue was reformulated. The issue then became the low level of fellings and the high price of wood.

The issue became both an opportunity and a threat in the 1980's. For the first time since the 1950's there was no physical shortage of wood in Sweden. This must have been considered an opportunity for the future, as capacity expansion became possible. If increased fellings were accompanied by reduced prices a future capacity expansion would be in sight. Consequently the industry used information strategies and lobbying to urge changes in forest policy, taxation, legislation and other social constraints that were regarded as obstacles for an efficient forestry.

On the other hand, if the changes demanded were not met, the cost of wood would slowly erode the industry's competitiveness. The solutions to this were increased yield, integration of pulp and paper production and improved methods in forestry. Drastic actions, i.e. expansion abroad and diversification, were perhaps somewhat more speculative, but were also seen as possible solutions. The focus on the low level of fellings continued during the first half of the 1980's, but as government policy gradually changed and the amount of fellings increased, conditions improved. The price of wood was high in comparison to international price levels, but the growth in demand for pulp and paper products minimised the problem of high costs in the short term.

As further discussed in chapter six, the balance between the supply

---

211 This statement must be related to the international competition with low price regions, as for instance parts of the US and plantations in southern regions of the world. Compared to earlier time periods the price level of wood decreased in the latter part of the 1970's.
of wood and the predicted demand was a complex issue. Depending on contextual circumstances the issue changed in character and the debate took unexpected directions. The different interests pursued by government, environmental movements, forest owners’ associations, privately owned companies, state owned companies, land owning companies and those companies dependent on purchased wood, made the debate both intense and complex. The reliance upon forest experts to make predictions was, however, striking. The role of these long-term plans will be further discussed in chapter six.

**Issue**
The balance between the supply of wood and the predicted demand.

**Label**
The problem of wood balance was a threat for quantitative expansion. This threat was most obvious in the 1940’s, evaded in the 1960’s, to return in the middle of the 1970’s. At the end of the 1970’s, the threat of a physical wood shortage disappeared. From then on, the issue focused on how to reach a higher level of fellings. Low fellings and high prices of wood were perceived as a major threat to the future of the industry.

**Solution**
- Restricted capacity expansions in the industry (partly by closing down old mills), i.e. a qualitative development into more value added products was favoured.
- A focus on integrated production of value added products.
- Research to increase the yield of wood.
- Improvements in forestry methods to increase the growing stock of wood.
- Internationalisation of production to secure the possibility for capacity expansion.
- Agreements to regulate investments in new capacity.
- Agreements to regulate wood consumption.
- Information and lobbying to achieve changes in forest policies, legislation and taxation.
6. The entrance of the Forest Owners' Association in the pulp and paper industry

In the debate regarding different owner categories qualifications for efficient forestry during the 1950's, industrial forestry was generally seen as a necessity due to increasing labour costs and the predicted shortage of wood. The private forest owners were often described as unable to adapt to the technological advances in forestry. The decision of the Forest Owners' Associations to enter the P&P industry was, against this background, regarded as provocative by the established actors. The establishment preferred to be without this new competitor and they therefore argued for a change in legislation which would allow the established companies to buy forests from private owners. Their entrance on the market was thus perceived as an anticipated threat. It was feared that the Forest Owners' Association would preserve an outdated ownership structure at the same time as the demand for wood would increase (see chapter eight).

**Issue**
The entrance of the Forest Owners' Association in the pulp and paper industry.

**Label**
The investments from the new actor would increase pulp production capacity and would thus increase demand and prices of wood. Moreover, if successful, the new actor was ultimately going to preserve what was believed to be an outdated structure of forest ownership. The issue must therefore be labelled as a threat to the established actors.

**Solution**
- Lobbying authorities to change legislation.
- Compete for the loyalty of the private forest owners.
7. Increasing international competition

When North American and Finnish companies expanded their capacity at the end of the 1950's, competition increased on the international pulp market. Predictions about even more capacity increases were common at this time. Moreover, the concept, used mainly in North America, was impressive; large-scale production, integrated production of pulp and paper and products focusing on new consumer needs were the three key points of the concept. Could this concept also be used by Sweden to meet increasing competition?

The concept was not entirely new to the Swedish P&P industry. As early as the 1930's, attention had been given to large-scale production, and plans for integrating production of pulp and paper had been made by many companies. The international competition however increased the need for change. Those opposing the suggestion of following the North American concept argued that there was still a good market for high quality market pulp combined with an organic chemical industry and/or special products outside the bulk production of paper. Experience during the war encouraged those advocating this line of development. At the end of the 1950's the advantage of high quality pulp slowly diminished and the development of the chemical industry was unfavourable to the P&P producers.

On the issue chart, there is a connection between increasing international competition and North American operations in Europe in the 1960's, as both issues increased the level of international competition. In the 1960's, North American companies acquired companies in Europe. The nature of these acquisitions posed a dilemma in as much as the customers of the Swedish producers could very well end up as subsidiaries to competitors from North America. The reaction from the Swedish companies most exposed to this development was to themselves take part in the acquisition wave at the end of the 1960's. As described in chapter seven, the importance of this issue was not debated in the industry. However, different and somewhat opposing solutions were proposed. The choice of solution was important and therefore a matter of close scrutiny.

212 We must not forget that large parts of the industry, mainly in the south of Sweden, had been integrated for many years. Holmen and STORA were two of the largest companies that operated an integrated production of pulp and paper.
**Issue**

**Label**
Obviously both issues were perceived as threats. The dependence on West European markets was great as the traditional export of pulp to the US disappeared after the Second World War. New investments being made in North America and Finland were impressive. Producers in those countries were now able to compete more successfully and as the North Americans acquired companies in Europe in the 1960's, the threat became even more apparent.

**Solution**
- Restructuralisation emphasising large-scale production.
- A focus on bulk products such as newsprint and kraftliner.
- Integration of pulp and paper production to increase efficiency.

Or alternatively
- A focus on high quality market pulp.
- Development of by-products - to build a future organic chemical industry.
- A focus on niche products.

And in the 1960’s
- Expand operations to Western Europe - internationalise by acquiring customers.

**8. The role of plastics**
The development of plastics technology caused few comments in the industry during the 1950’s. The comments observed originate mainly from individuals inspired by the development in the US. In more general speeches, comments concerning this subject were hardly ever included. Those commenting were generally enthusiastic about future opportunities, but a few also stressed the inherent threat if this development should be ignored by the P&P industry.
In the 1960's, the general view was that plastics could become a substitute to paper in several areas, of which the most obvious was carrier bags. At the beginning of the 1970's, plastics remained an issue in the debate. Extended research aiming to increase the quality of paper products as well as to develop new products in which paper and plastics could be combined, was conceived as one solution. Moreover the reduction of overall costs in the production of paper obviously made paper products more competitive in relation to plastics. Finally, information campaigns were used to argue for the superiority of paper. Together with the oil-crisis, the growing influence of the environmental movement changed the role of plastics.

Plastics was an increasing threat until the early 1970’s. Depending on the view of the future and company-specific conditions, experts took different standpoints on the importance of the threat but most of them tended to emphasise the growth opportunities in this development.

**Issue**
The role of plastics.

**Label**
The threat from plastics to traditional paper based products was obvious in some product groups. In some areas, however, plastics were perceived as combinable with paper and thus presented new opportunities for product development.

**Solution**
- Intensified information.
- Research and development.
- Reduction in production costs for paper products.

9. **New countries entering the pulp market**
The attention placed on new pulp producing countries increased at the end of the 1950’s. Some observers viewed new producers as new actors who could fill the growing need for pulp on the West European
markets - a desired development; especially as future demand was expected to increase. However other experts saw these new producers as potential competitors. The opportunity or threat labelling obviously had an effect on the solutions proposed. In the first case, an active transfer of technology was advocated. Some Swedish companies invested abroad to transfer technology and to take advantage of the lower priced wood in regions such as South America and the south of Europe. When the growth of new producing countries became labelled as a threat, it was of the greatest urgency that efficiency increased; large-scale production, quality development and a general decrease in costs was also necessary. Whatever the label used, the need for further integrated production of pulp and paper was a necessity.

During the 1960's and onwards the importance of the issue was related to the long-term supply of the West European markets (see no. 12). When high demand growth was predicted in West Europe, the new countries were perceived as contributing to the supply of West European markets. When demand growth was low, the new producers were mainly considered as a threat to the established suppliers, among those the Swedish P&P industry.

In the 1980's the issue changed character as production of hardwood pulp grew substantially and was predicted to continue to grow. Until then hardwood pulp had been mainly regarded a complement to softwood pulp. Technological advances enabling hardwood pulp to be used in a wider product range made this pulp grade a serious threat. Most experts argued however that the substitution of softwood pulp would take a long time and would, hopefully, be counteracted by improved methods in forestry and the extended use of new species (i.e. Pinus Contorta).

**Issue**

New countries entering the pulp market.

**Label**

A threat or an opportunity? All depended upon the future development in demand.
Solution

Regardless of what labelling

- Intensified integration of pulp and paper production.

If the issue was labelled as an opportunity

- Technology export allowed increased expansion. Investments in developing countries were also seen as a way of taking advantage of these developments.

If the issue was labelled as a threat

- Swedish producers had to intensify large-scale production, integration and research (to develop superior qualities of pulp).
- The cost of wood had to be reduced.

10. The increasing attention from the general public and authorities

In the 1960's, increasing attention from the general public and authorities became an issue for the P&P industry. The interest of the authorities arose as the restructurisation of the industry had implications for employment; especially in the north of Sweden. Furthermore, decreasing profitability in the 1960's was interpreted as a sign that the industry was in need of radical change. Finally, the public, mainly through the emerging environmentalist movement, focused attention on the industry's operations. In the issue chart, the environmental debate becomes two separate issues in the 1970’s (see no. 11). The environmental issue can thus from the 1960's, be divided into one issue concerning forestry methods and one issue concerning pollution.

Intensified information was seen as one way to meet this growing attention. Efforts to increase information to the public as well as taking an active part in investigations and commissions increased substantially at the end of the 1960's and during the 1970's. During the latter decade, changes were drastic. The period of excess profits suddenly plunged into a deep crisis within a few years. During the period of excess profits, the industry tried to create a public understanding for the industry's need of these large profits as a means of sustaining long-term survival. In times of low profitability, the industry had to inform the public and the authorities about the need for
radical changes in economic policy to restore competitiveness.

The focus on energy supply (i.e. taxation increases and the future of nuclear power) also incited the industry to initiate actions to inform authorities as well as the general public about the actual conditions at the end of the 1970's and during the 1980's.

**Issue**
The increasing attention of the general public and the authorities.

**Label**
The increasing attention was partly due to the concern about the future of the industry in the 1960's. However, these attempts to influence the future of the industry were perceived as a threat. In the 1970's, the attention from outsiders was stressed by industry experts. The industry was closely examined in almost all respects. Pressures building from this close scrutiny created great difficulties.

**Solution**
- Increasing information efforts towards the general public to explain the role of the industry.
- Participation in investigations and commissions to explain industry standpoints.

11. The environmental issues
The two issues related to the overall interest of the public in the 1960's were, one, those concerning forestry methods, and two, those focusing on pollution. Both issues emerged in the 1960's and were of importance both throughout the 1970's and the 1980's.

The criticism of modern industrial forestry grew quickly. The environmentalist movement saw industrial forestry, i.e., the use of herbicides and fertilisers as threatening wildlife. The industry considered industrial forestry a necessity to reduce the shortage of wood and to restore the industry’s competitive advantage. This issue remained in the debate during the entire 1980’s even if the industry's change in point of view in the last years of the decade diminished its intensity.
The second issue focused on the pollution of air and water. Pollution had been observed for many years. It was, however only after demands were formulated by the authorities that the industry instigated extensive efforts to reduce pollution. The results were positive; and consequently, as profitability decreased in the late 1970's, relief from continuing anti-pollution investments was suggested. However, in the 1980's, new events of concern, i.e. the chlorine debate in 1987, forced the industry to continue their investments in environmental-friendly technology. The industry's reputation in relation to environmental issues was traditionally low and in spite of increasing efforts, i.e., education in schools and distribution of “facts” to the general public, it was not highly regarded. Experts admitted that increased investment costs due to environmental legislation, aided the restructualisation of the industry, as these demands made it too expensive to rebuild old mills. However investments in non-profitable operations such as protecting air and water, were not then seen as increasing industry competitiveness in an international perspective.

In this, as in the previous issue, a debate in the societal arena continued for decades. The debate between industrialists and the environmental movement concerning the best use of the forests permeated the industry for more than three decades. Regardless of the information activities pursued, the industry was not, in the eyes of the general public, trustworthy. The industry kept its conservative and entrenched position until the end of the 1980's, when a change in the attitude could be seen; i.e. no internal debate about forestry methods or anti-pollution investments could be found in the empirical data.

**Issue**

Environmental issues; forestry methods and pollution in focus.

**Label**

The growing environmental movement represented a threat to profitability. Environmentally friendly forestry and anti-pollution investments reduced the international competitiveness of the industry.

**Solution**

Information was the overall means of achieving any change in attitude. The role of the industry in Sweden and the low degree of pollution in
comparison with other countries were arguments that motivated the industry's standpoint. The industry tended to adapt to the demands set by laws and regulations. Measures above these basic demands were resisted as the uncertainty involved in using non-proven technology was great. In the long term a qualitative development of the industry obviously reduced pressure on the forests at the same time as increased restructurisation resulted in decreased pollution (a few modern large-scale mills pollute less than a large number of old mills).

12. The long-term supply of the West European markets

During the 1960's, the awareness grew that the Scandinavian countries would, in the long term, be unable to meet the demand for paper products from Western Europe. This development was both an opportunity and a threat to Swedish producers. The opportunity lay in the prospect of higher prices as a result of growth in demand and thus an increase in profitability could be anticipated. The threatening aspect was that producers outside Europe (mainly in the US) would enter European markets on a large scale and gradually replace the traditional suppliers from Scandinavia. The ability of US producers to respond to a sudden demand growth on the Western European market, illustrated the threat, as the Scandinavians then experienced difficulty in regaining their market shares. US producers were, for instance, accused of price dumping in order to defend their newly established bridge-head.

One solution to this problem was to initiate the production of pulp in other regions of the world. This would enable the Swedish producers to supply the Western European markets growing demand for pulp either from Scandinavian mills or from mills outside Europe.

As mentioned earlier, new pulp producing countries could also be regarded as a solution. The assumption was that these new producers would produce mainly low quality hardwood pulp, a product mainly used in the production of printing and writing paper. According to the idea of sector specialisation expressed in the “live and let live“ policy, these products were mainly to be produced by West European industries. Consequently, the importation of hardwood pulp from Brazil and other newly established pulp producing countries would only supplement the Swedish export of soft wood pulp. Moreover, this
could be used to relieve some of the pressure placed on Scandinavia as the main supplier of pulp to West European markets. However the most obvious solution, in a long-term perspective, was to utilise industrial forestry to increase the annual growing stock of wood in Sweden.

**Issue**
The long-term supply of pulp and paper to Western European markets.

**Label**
This issue was both regarded as a threat and an opportunity. The growing demand in itself offered an opportunity for expansion, but as Scandinavia was subject to limited wood supplies, not able to match the growing needs of Western Europe, other solutions had to be considered. The threat entailed the entrance of competitors from North America on the market scene. However, one way for the Swedish companies to counteract this development was to expand their own production in regions outside Scandinavia.

**Solution**
- Improvements in pulp quality.
- Increased production capacity in Scandinavia with the help of improved forestry methods.
- Investments abroad to supply Western European markets.

Obviously the importance of the issue, as well as the solutions suggested, reflected the changes in predicted demand growth in Western Europe.

**13. Organisational forms for co-operation**
The future for co-operative arrangements within the industry was an issue that entered the debate at the end of the 1980's. The issue emerged as the operations of the Swedish Forest Product Research Institute (STFI), were questioned. After a debate, the institute's role
became somewhat changed. Shortly afterwards, the role of the trade association was also questioned. Following these initiatives, both institutions were reduced in size and several of their responsibilities gradually transferred to member companies. The reasons given for these changes were the need for immediate cost reduction for member companies, the growing need to build distinct company identities and the increasing competitive climate in the industry. Obviously, the issue emerged as the traditional climate of consensus collapsed within the industry. The background for this development was the emergence of three distinct categories of companies with fewer common interests during the 1980's.

The proposal to reduce co-operative arrangements in the industry caused debate. Experts in industry wide research opposed this as did other industry experts who saw this trend as a reversion to an earlier phase of development. A phase in which information activities had been totally neglected.

**Issue**

Organisational forms of co-operation.

**Label**

An *opportunity* to reduce costs and strengthen company identities. But also a *threat* as the strength gained from collective arrangements in research, trade negotiations and information activities was lost.

**Solution**

After negotiations, the joint research institute and the trade association were downsized and reorganised. Some responsibilities were transferred to individual companies within the industry. One hope was that the European trade association (EPI) would replace national associations in some aspects.

**14. Recycle - do not burn!**

Recycled paper entered the debate at the end of the 1970’s. The
importance of recycled paper as a complementary raw material gradually increased. Consequently, a stable supply of recycled paper became important for the industry. This supply became threatened on two occasions. The first was in 1973, when the first oil crisis occurred. One of the solutions proposed as a future supply of energy was the use of waste paper as a fuel in power generation stations. However, the industry argued that the best solution for society was to recycle paper as far as possible. When of no use in paper production what was left could be burned. In 1979/80, the issue returned in the debate partly due to the second oil crisis but mainly as a result of the nuclear power debate. At this time, the industry and the authorities had been successful in the establishment of an efficient system for the collection of vast amounts of used paper from households. This system could just as well be used in the production of energy. Industry experts argued intensively that paper must be recycled as far as possible. It must finally be noted that the value of recycled paper grew as the industry, as a result of environmental reasons, extended its' usage. This made the issue increase in importance.

Obviously the industry was engaged in the societal debate in order to persuade the public and the authorities that recycled paper was best taken care of by the industry. As the environmental movement became more aggressive and consumer interests demanded increased production based on recycled paper, the need to secure the supply of recycled paper grew even more important. The realisation that the use of recycled paper could allow increasing changes in the industry's production structure, obviously also encouraged the industry to pay more attention to the issue.

Issue
Recycle - do not burn!

Label
As recycled paper grew in importance, a regular and steady supply became vital. Alternative usages, suggested, were, in this respect a threat to a steady supply.
**Solution**

The industry used information campaigns and lobbying to argue for the best solution, i.e. to recycle as much paper as possible and to burn the remainder. The importation of recycled paper was also considered. Obviously, in the long run, the production of paper could be internationalised as the large sources of recycled paper were to be found in the population centres of West Europe.

**15. Fluctuating exchange rates**

Fluctuations in exchange rates entered the debate in 1971. Generally speaking, exchange rates had been constant during the period 1949-1971. Suddenly, this stability vanished, which caused considerable uncertainty for the pulp and paper companies. The US dollar was in focus as several important product groups were priced in US dollars and North American companies were important actors on the market. During the 1970's exchange rates developed unfavourably for the Swedish P&P industry, a development that had a direct effect on profitability. The ways in which this problem could be met were restricted to increased efficiency in production, efforts to produce more value added products, and attempts to persuade politicians to change the Swedish economic policy.

During the 1980's, the issue still remained in the debate. The Swedish de-valuations at the beginning of the decade improved the situation somewhat, but uncertainty was still expressed in many statements, as confidence in Swedish economic policy was low. Lobbying to achieve changes in the economic policy was complemented by the increasing importance of financial strategies to lower the effects of currency fluctuations. Furthermore, experts connected uncertainty regarding future currency ratios with the internationalisation of production. A production structure reflecting the sales in Europe would reduce exposure to currency fluctuations.

**Issue**

Fluctuating exchange rates.
Label
Depending on the time period studied, fluctuating exchange rates were either a threat or an opportunity to the Swedish P&P industry. However fluctuations as a phenomenon added uncertainty when it came to long-term planning, i.e. fluctuations threatened the actors as it reduced predictability.

Solution
- A continuous improvement of financial strategies in order to reduce the effects of fluctuations.
- Lobbying for changes in Swedish economic policy.
- Changes in localisation of production to reduce exposure to fluctuations.

16. The supply of energy
The supply of energy became an issue in the 1970’s. This was triggered by the oil crisis of 1973. The oil crises (1973 and 1979) and subsequent increased energy prices made the industry focus on this production factor. Research and development reduced the use of oil substantially consequently reducing costs. It also gradually converted from oil to energy produced by hydro-electric and nuclear power.

The debate concerning the future of nuclear power in 1979-1980 became a threatening issue. It was feared that a phase-out of nuclear plants would lead to increased energy prices. Energy was of vital importance to the Swedish production concept; thus the industry became involved in lobbying, information campaigns and many “investigations“, all in order to reduce the threat.

One result of the general referendum were increases in energy taxes. Increases that were heavily criticised by the industry as these lessened a vital competitive advantage. In 1986, taxation levels were changed and export production was exempted from VAT, but even so, energy was still an important issue in the debate at the end of the 1980’s. The proposal to close down one or several nuclear reactors once again threatened the long-term supply of low priced energy, and it was therefore strongly rejected by the industry.
One of the responses to the threat of high priced energy was to increase information and lobbying. In the 1980's, it was repeatedly stressed by the experts that increased internationalisation of production was the ultimate way to avoid the hostile economic climate exemplified by increased taxation. As shown on a number of occasions, this issue was subject to societal sensemaking. The industry argued that its production concept relied on the supply of low-priced energy. Removing this fundamental base would ruin its possibility to compete on international markets.

**Issue**
The supply of low priced energy.

**Label**
Energy, traditionally a low-priced production factor, offered a competitive advantage to energy intensive production. During the 1970's and 1980's, this condition gradually changed. The *threat* comprised increased energy prices that would threaten and subsequently nullify one of the most important competitive advantages of the Swedish P&P industry.

**Solution**
- Intensified lobbying.
- Information efforts to the general public and authorities.
- In the long-term perspective - a changing pattern of localisation.

**5.2 The origin of issues**

Sixteen issues have been described in the above. Issues that industry experts themselves referred to when they addressed the future of the Swedish P&P industry. As an example, in the 1940's, the issue focusing on government constraints placed upon the industry's development (issue no.1) was vital to industry experts when they
considered the future of the industry. There was no speech made considering the future of the industry that did not treat this issue. The same can be said about all the issues above. Obviously, experts tended to more or less emphasise issues when reviewing options for the future. They naturally also dealt with more company specific issues. However the data collected shows that these were the basic issues of concern to the industry.

The set of issues identified and discussed represent future oriented strategic issues in the industry. These issues appear in the debate either as collective actions are to be mobilised, or as a response to some event.

Two examples can be given as the origin of issues. One, typical event was the breakdown of the Bretton Wood currency exchange system in the early 1970’s. This breakdown can be traced to the economic development in the US - following its involvement in the Vietnam war. However, these links are not within the scope of this study. For the Swedish P&P industry the change that took place in 1971, was an event that gradually became important for the future of the industry. The issue was identified, labelled as a threat and addressed with solutions as, in this case, improved financial strategies. It must be stressed that even if this issue is seen as an event, it does not imply that the experts in the industry were necessarily taken by surprise. The point being that the change was initiated by actions taken in an unrelated context.

An example of an issue originating from actions taken by actors in the industry is the co-operative arrangements at the end of the 1980’s (no.13). This issue can be traced to a single speech given by Sverker Martin-Löf, CEO of SCA. However, just as with fluctuating exchange rates, the action taken by Martin-Löf only initiated the issue. Tension had been mounting for some time and several other stakeholders were obviously prepared for the debate that followed.213

---

213 This tension refers to the few remaining companies in the industry. Companies that were highly differentiated in size. Moreover, internationalisation and the more competitive climate in Europe contributed to the tension.
5.3 Issues, labels and solutions - a comment

The categorisation of issues is difficult as some issues proved to be both solutions and issues at the same time. Industrial forestry is, for example, frequently mentioned as a solution. However, industrial forestry also appears as an issue in itself (no.11), when the environmental movement increased the pressure on the industry to show responsibility for the forest environment. The reason for this duality is rather obvious. As industrial forestry was a valuable solution for the industry in as much as it was applicable in a number of issues, criticism from the environmental movement consequently threatened a vital part of the success formula and thus an issue was born. The same logic is reflected in the energy issue (no.16). The use of energy was of great importance in the production concept chosen as a response to increasing international competition, (no.7) and low priced energy was a vital part of this. Consequently, when the supply of low priced energy was threatened, it became an important issue (no.16).

Furthermore, the distinction between “threat” and “opportunity” is not always easy to identify in the issues. Several issues can be conceived as both opportunities and threats, as described above. The reasons for this are, in most cases, due to the time scale considered by the experts, as well as specific company contexts.214 As the study covers a period of 45 years, some issues that were initially seen as an opportunity, i.e., the international trend toward trade internationalisation (no.3), were later perceived as a threat as reverses appearing later on jeopardised their development. These shifts in labelling had to allow a flexibility in solutions. Depending on the issue label, the solution favoured could change drastically.

This flexibility in issues, labels and solutions is the essence of the debate in the industry. The shifting labels and solutions is natural, as industry experts voice their opinions and thus try to influence sensemaking processes. It would be strange if the CEO of a large pulp producing company in the south of Sweden used the very same categorisation of issues, labels and solutions as the producer of highly

214 Even if most industry experts comment on industry development in the speeches reviewed, they tend to construct their overviews with a specific company in mind.
advanced board products in the north of the country. The experts, even though addressing the future of the Swedish P&P industry, have specific company contexts as well as earlier experiences implicitly or explicitly in mind when they comment on the future of the Swedish industry. So even if a homogenous core of issues can be detected, following Gagliardi (1986) and Argyris and Schön (1978), differences in labels and solutions among experts reveal the continuous debate in the industry. New ideas, arguments and views continuously appear. Some of these are born of the experience unique for this industry and other views are given attention as they become popular in another industry or sector of society. The peripheral knowledge structure (Lyles and Schwenk, 1992) represented by situational beliefs are thus in constant motion. As they are mainly future oriented, the situational beliefs reflected in issues, labels and solutions further describe ambitions. To what degree these ambitions are transformed into actions is discussed in chapter eight.

5.4 The negotiated environment

The emergence of an issue, the labelling of the issue and the solutions proposed can, as stated above, never be taken for granted. The process includes a debate and a process of sensemaking. In the debate, different opinions are stated, evaluated and chosen in actor specific sensemaking processes. In some cases, debates take place openly, but are more often a hidden process (cf Huff, 1988).215 In the issue concerning organisational forms of co-operation (no.4) the debate between Kastrup and Sundblad in the 1950’s is one example that describes how different views were debated.

Another debate, mentioned in several interviews and which also surfaces in some texts (cf Svensk Skogsindustri i omvandling, 1971), is the resistance towards the integration forward, undertaken by

215 Hidden in the meaning that debates take place in closed meetings and informal discussions. The board meeting protocols used in this research most likely exposes a unique possibility to uncover some parts of this hidden debate.
several companies in the 1950's and 1960's. The sales departments formed an important cohort,\textsuperscript{216} who argued that the pulp companies would eventually end up competing with their own customers. The struggle between sales and marketing and those who supported the integration efforts is illustrated by the alternative solutions that were adopted as a response to increasing international competition, (no.7). Companies with influential proponents facilitating a continuous focus on market pulp obviously stressed that value added market pulp could be combined with the development of a chemical industry. Those in favour of vertical integration used the development observed in the US as an important argument.\textsuperscript{217}

All three of these issues show how intra-industry dynamics exist in the industry. Greenwood and Hinings (1996:1037) argue that deep change will only occur in “conjunction with an appropriate “capacity for action“ and supportive power dependencies. Capacity for action and power dependencies are the enablers of radical change.” In this intra-industry struggle, the different interest groups (cohorts) attach their concerns to either industry specific developments (in Sweden or elsewhere), societal changes or proven experience. The similarity to Dutton's (1993) argument, concluding that in the resolution of the intraorganisational issue, interest groups use wider social issues as legitimising hooks, is striking (see 2.2).

Sensemaking must be contextually applied, as Weick (1995:53) stresses when he argues that students of sensemaking must “think context”. Weick (1979, 1995) illustrates how the concept can be used on the individual, group and organisational level. In the examples above the debate within the industry was in focus. The need to examine the question of controlling power in this industry debate was one important result these illustrations had to offer. Hardy (1996) builds on Lukes (1974) and stresses the role of power in the sensemaking process. Power can be executed in a direct, open way, but of more interest here, is the dimension of the “power of meaning“. This tactic is pursued by those in power in order to evade conflicts. Proposed changes are presented as obvious and those individuals who

\textsuperscript{216} A term used by industry experts to describe professional groupings in the industry

\textsuperscript{217} The struggle between what can be described as the “traditionalists“ and the “renewers“ is also discussed in chapter seven.
resist are described as resisting the natural and logical consequences of the development. However, all changes tend to maintain the prevailing power structure. The best way of applying the power of meaning is to control this process and to use the inherent resources of the belief system in which the context is embedded. As will be further discussed in chapters six and seven, institutional beliefs represent one of these resources. The changes suggested, based on and motivated by institutional beliefs, are powerful as they pursue a logical and rational way of thinking.

The issues described in this chapter are mainly open-ended and debated within the industry. In these issues the exercise of the power of meaning is less perceptible. When attempts are made to influence the societal debate, exercising these power dimensions is easily perceptible, as consensus within the industry increases. Thus, the internal debate concerning issues such as increasing costs and regulations in Sweden (no.1), the environmental issue (no.11), recycle or burn (no.14) and the energy issue (no.16) is almost non existent.\footnote{One of the very few examples of how an opposing view could be expressed was in the nuclear debate in Sweden 1979/80. In Svensk Papperstidning (1980:2) Bengt Nylander expressed severe doubt about the trade associations policy in this issue. The article written by Nylander stands out as more than twenty articles were published on this subject at about the same time. All the rest used the same arguments and reached the same conclusion. “An expansive Swedish forest industry needs, amongst other things, to have a sensible energy policy. Without this, our competitiveness will disappear and the desire for further expansion be entirely lost... Sweden needs an atmosphere of increased reward for new initiatives, not the present funereal climate. This change will require much hard work, for instance in convincing your friends not to vote on 23 March for a precipitous nuclear phase out. Sweden needs this resource to solve its social problems and to benefit the sick and the aged.” (Engman, 1980:4). That is, the only sensible energy policy was to continue to rely on nuclear power.} To begin with, it obviously comes as no surprise that industry experts close ranks in such overall issues. However all issues are not of equal importance to all companies. For instance, only certain sectors of the industry are large consumers of energy. Even though interests differ, collective resources (i.e. the trade association) are used in these issues without any noticeable debate. That is, the distribution of power in the industry obviously affects how joint resources are to be used in the societal debate.
The discussion concerning the role of politics and resources in the industry does not end here. In the following discussion the theme reoccurs several times. However, in chapter eight, the division between the adaptive, stretching and challenging approaches is intimately connected with the above discussion.

5.5 Situational and institutional beliefs

The sixteen issues reviewed above reflect situational beliefs. These beliefs are so stable that they allow us to identify related issues, labels and solutions, at the same time as the belief system offers flexibility that allows these beliefs to adjust to the ongoing flow of events and actions. The same expert can thus express his/her belief in a future shortage of wood in the late 1940's and just a few years later be able to take the opposite position. To be trustworthy this change in beliefs must be supported by new facts. In this sense, beliefs are situational in time as used in an ongoing debate.

However, reviewing the above, some of the issues, labels and solutions tend to be stable over longer periods of time. A few topics, such as the focus on the relation between the supply and demand of wood appear in different forms in the issue chart during the entire period. Solutions also tend to last for a long period of time. Large-scale production is, for instance, a solution, that has been combined with a number of issues.

In the following chapter, the phenomenon of more basic beliefs is focused. It will be argued that the proposed institutional beliefs represent important building blocks in the industrial wisdom. Together with the situational beliefs, these institutional beliefs compose the industrial wisdom of the Swedish P&P industry.

6. Institutional beliefs in the pulp and paper industry
In the theoretical framework it was argued that industrial wisdom contains two interrelated parts; situational beliefs related to specific issues in the industry debate and institutional beliefs representing the more deep seated and enduring building blocks. In the review of issues in the P&P industry, in chapters four and five, the focus was placed on situational beliefs. In the following two chapters, the focus is placed on institutional beliefs. Beliefs which represent the nodes that relate and connect issues through time and topics. Thus, by reviewing and analysing issues within the industry context, a set of institutional beliefs gradually surface as patterns of solutions and labels are repeatedly dealt with.

Institutional beliefs are, for the most part, taken for granted, and thus not often the subject of an explicit debate in the industry. This is not to say that experts are completely unaware of institutional beliefs. Institutional beliefs simply represent obvious assumptions that do not require question or debate. If an expert questions an institutional belief during a debate he/she will most likely be regarded as either eccentric or somewhat out of line.

Following the enactment process described in chapter two, institutional beliefs materialise in infra- and relational structures. Hence, in time they gradually stabilise and become a complex interrelated network of infrastructures, relational structures and belief structures. A structural network it takes considerable effort to oppose. However, on the other hand, who would wish to oppose it? The structural net reduces uncertainty as it helps industry experts to interpret and construct their world.

In the following, five institutional beliefs are reviewed. As indicated earlier, they emerged as the case was constructed and the issues identified. With regard to the delimitations (see chapter 3), it is proposed that they represent vital parts of the industrial wisdom in the Swedish P&P industry. Finally, it must be stressed that the aim of this chapter is to illustrate the foundation of stability. In chapter seven, the role of institutional beliefs in understanding change will be further discussed.
6.1 The need for a long term perspective

Perhaps the most obvious managerial task is to plan for the future; to think about the long term consequences of decisions and actions taken today. Top executives regarded as successful are often those who are able to foresee trends and adapt the organisation to environmental changes. From this perspective, all organisations are dependent upon future planning. Planning is assumed to be separate from daily operational tasks (Ansoff, 1968). The concept of long range planning is a way to meet this need for planning. The concept emanates from the Second World War, when operational analysis was used when planning large military operations (Ehn och Sandberg, 1975). Gradually the idea of formal long range planning was adopted by the industrial community, where it quickly became a powerful management tool.

"Being in favor of long range planning is something like being in favor of motherhood. Who is or can be against it?" (Steiner, 1963:1)

In the 1960's, a number of text books from the US dealt with long range planning techniques (cf. Steiner, 1963; Ewing, 1964). These books reflected the conception prevailing at that time, i.e. that it was possible to predict the future with a high degree of accuracy. As a result of the prevailing optimism, the only question for planners was, at what pace growth would increase. Capon et al (1980), conclude that the diffusion of formal, long range planning techniques was led by trans-national companies, and gradually adopted domestically. With this in mind, it is of no surprise that the concept was soon adopted in Sweden, a country dominated by large international companies (cf SNS, 1971; Ehn och Sandberg, 1975; Sjöstrand, 1976).

Brandinger (1982) argued for an industry-specific perspective in long range planning. His point was that the need of long range planning was dependent on industry characteristics. Some industries needed long range planning as they were characterised by large, step-wise investments. Consequently, industries characterised by minor, incremental investments and overall flexibility could use shorter

\[ \text{219 The P&P industry was (and is) an example of this.} \]
planning perspectives. However, when the business environment became increasingly turbulent and the assumptions on which plans were based repeatedly proved to be outdated, an increasing scepticism towards formal, long range planning became evident at the end of the 1970's.

Focusing on the P&P industry, it is easy to oppose this version of history. As will be further discussed, this industry was characterised by an institutional belief in the need for a long term perspective, before the development of long range planning techniques in the 1950's and 1960's. The trend after the Second World War however re-enforced this belief. Hence, Melin's description of how a pulp and paper company in 1968 introduced a formal function for long range planning, with the help of an US-based consultant, serves as a good example of how planning techniques were smoothly integrated into the industry (Melin, 1976, see also Persson et al, 1977).

The belief in a long term perspective is not quite as evident in the previous chapters. This institutional belief becomes more apparent when basic questions are posed such as; why were some issues added to the debate? Why were issues labelled as threats or opportunities? As described below, the problems emanating from the institutional belief in the need for a long term perspective, are sometimes the cause of a specific issue and in other cases the belief nurtured the issues introduced for other reasons into the debate.

In the following, three examples are used to illustrate the importance of the institutional belief in the need for a long term perspective. The first two focus on the step-wise investments in the industry and the third uses the balance between the supply and demand for wood as a starting point.

**The trend towards liberalisation and the long term perspective**

The international trend toward liberalisation was regarded by industry experts as vital for the development of the industry. In 1971, when an agreement concerning the gradual removal of trade barriers was finally settled with the EEC countries, some comments expressed unease about the terms of the agreement. One reason for this unease was that the terms were unfavourable when compared to similar agreements in other industries. However, uncertainty about the future was an even more important reason. The agreement included a number of
conditions that were difficult to interpret. Moreover, the agreement provided the EEC with the opportunity to delay agreed deregulations when growth slumped. Industry experts commented on the agreement as follows, or in similar ways.

“The uncertainty in long term planning within the Swedish paper industry as a result of the EEC agreement can have serious consequences for many areas of Swedish society. The difficulties facing the paper industry in determining, with some degree of certainty, future expansion will remain for a long time because of the uncertainty and terms in the formulation of this agreement.” (Svensk Papperstidning, 1972:358)

The uncertainty connected with the agreement was because of the need for long-range planning for future investments in mills and machines. The conflict between, on the one hand the need for a long term perspective when considering extensive investments and the unpredictability of social factors on the other is a recurring theme in several issues. A further example of this, are the fluctuating exchange rates. An issue that entered the debate in 1971.

Fluctuating exchange rates and the long term perspective

The breakdown of the Bretton Wood system created turbulence throughout the world. However, the change in the currency system was of vital importance to the Swedish P&P industry during the 1970's, as exchange rates developed unfavourably. During the 1980's, the issue kept its place in the debate, even though exchange rates developed more favourably.

As in the previous example concerning trade liberalisation, this issue is rooted in a growing uncertainty. The logic involved can be described by a single case: The future of the Östrand pulp mill.22 At the beginning of the 1970’s, the mill was predicted to survive at least

---

220 Östrand was built during the years 1929-1932. It was the first mill in the SCA group to produce sulphate pulp and at the time, one of the largest pulp mills in the world. In the decades to come, several large investments were made to boost capacity. However, the basic technological construction of the mill was growing old when we enter the 1970's.
ten years without any major investments, but as conditions changed in 1977/78 SCA came to a crossroad. They could either carry out large investments to increase productivity, or decide to shut operations down within a few years. The reason for this shift in plans was rooted in the recession and the fluctuating exchange rates. As pulp was traded in US dollars these rates had a profound impact on profitability. The outcome of the choice was therefore equally dependent on both price levels and the development of exchange rates.

The decision to invest, made in October 1979, was commented on in the 1979 annual report,\footnote{More than two pages were devoted to this single decision.} which was published about three months after the decision had been made. During these three months, exchange rates had developed favourably. Hence, the report concludes that had management been able to foresee the changes taking place during the three months, the choice to invest, then the subject of great uncertainty, would have been obvious.

The investment in Östrand illustrates the high level of uncertainty due to the unpredictability of exchange rates. The first five years after the breakdown of the Bretton Wood system were disadvantageous to the Swedish P&P industry. If the exchange rates in 1978 would stabilise or not was a matter of speculation. However, the problem arose as the investment, calculated to be some SEK 800 Million, was of course, an extremely long-term commitment. The need for long range planning was obvious when evaluating this investment.

Östrand is only one example of many similar investment problems. It can be argued that the conflict between the short term development of exchange rates and the long term perspective necessary for large investments qualified "the fluctuating exchange rates" as an issue for the industry debate. The need for a long term perspective in the P&P industry is consequently related to the large step-wise investments but is also partly dependent on the large-scale production volumes of the industry (discussed further in section 6.4). As a result of the emphasis on large-scale production, paper and pulp mills became increasingly specialised. In section 4.2, the development in the size of newsprint machines was illustrated; output increased from 90,000 tons at the end of the 1950's to about 270,000 tons in 1996. This increase in output together with the introduction of more specialised machines increased
the level of uncertainty involved in investment (cf Svedlund, 1952). One way of reducing this uncertainty was to increase efforts in forecasting and planning.

So far, two examples have illustrated how the institutional belief in the need for a long term perspective affected issues. Issues surfaced as a conflict emerged between the need for a long term perspective in investments and the low predictability of exchange rates and trade deregulation. These are, however, not the only issues in which the institutional belief concerning the need for a long term perspective was evident. A further subject in which there was a need for a long term perspective was the supply of wood.

**The supply of wood and the belief in the long term perspective**

Nordström (1959) reports that the fear of a shortage of wood has a long tradition in Sweden.

"Many writers during the 17th, 18th and 19th centuries gave dramatic accounts of serious wood shortages." (Nordström, 1959:242)

Whether real or imagined, the fear of a shortage in the supply of wood forced the problem of the balance of wood to enter the societal as well as the industry debate. From the 1850’s, the expanding saw mill industry and the continual build up of the P&P industry increased the industrial use of forests - a trend that towards the end of the 19th century, gave credence to predictions of a future shortage. Increasing development emphasised the need for adequate estimations of supply.

---

222 Svedlund reviews the investments in paper machines in the period 1945-1952. He concludes that with a few exceptions the new machines during this period were rather small and constructed for a broad range of products (see also Simonsson, 1950). Inspired by the development in the US, he urged for specialised large-scale machines. In the following decades his request was granted (cf Svensk Skogsindustri i Omvandling, 1971:284).

223 Linder and Östlund (1992) present several arguments pointing to why the predictions of a shortage could have been exaggerated during the 16th and 17th centuries.
Arpi (1959) described the reason for the escalating number of forecasts during the period 1850-1950 as follows.

“Concrete evidence was required in the debate between the expanding industry on the one hand, and the more cautious and conservative interests on the other; it was therefore an obvious step to determine both national and regional estimates of the balance between growth and fellings.“ (Arpi, 1959:118)

The debate between industrialists and the more cautious conservationists illustrates the growing importance of the forests. Wood became a valuable, renewable asset when taken care of. Gummesson (1993) describes the emergence of a broad interest in forestry, founded on this realisation. A movement that was paralleled by more rigorous legislation (Skogsvårdslagen, 1903 extended in 1923), which took a long term view of forest management. As Arpi (1959) indicated, the growing importance of the forest as a resource in the industrial society contributed to the increasing number of investigations into the long term balance between the growing stock of wood (supply) and fellings (demand).

The growing insight of the value of forests together with the traditional focus on the balance of supply and demand, makes it easy to understand that the industry applied a long term perspective on the growing stock of wood after the Second World War. The following quotation from a keynote speech at the Annual Forest Conference in 1972, is an example of a rather conventional way of stressing the need for a long term perspective in forestry.

“The actions we now take will be of consequence for the forestry far into the next century. It is therefore of the utmost importance that we consider the consequences of the measures we take today, and try to see them in the long-term perspective.“ (Edström, 1972:168)

The emphasis on a long term perspective in forestry is one reason for the large number of investigations which tried to forecast the balance in supply and demand after the Second World War. In reviewing these reports a pattern develops. The perceived need to estimate supply/demand balances encouraged frequent estimations of the growing stock of wood which were complemented by the forecasted
growth in demand, i.e. plans for capacity increases. In the following figure, the reasoning is illustrated. In addition, the interdependence between the result (the balance) and actual investments in new capacity is added. This feed-back loop is yet a further factor increasing the uncertainty in planning. Other aspects considered are the time perspective, the price level of pulp wood, the regional aspects of balances, the import/export of wood, the use of wood in related industries and the existence of raw material substitutes.

Figure 6.1. *Estimations involved in long range planning*

From the predictions of the future balance in wood, a complex and increasingly advanced system of estimations develops. A system that includes estimations of factors that tend to shift more frequently than the growing stock of wood. Consequently, the result of the balance between supply and demand for wood have to change repeatedly. In the 1940's and 1970's the fear of a future shortage in wood was evident. In the 1950's, and in the latter part of the 1970's and 1980's, a more optimistic view was held concerning the balance. The changes in
estimations were of vital importance for long range planning in the industry.

Two important reasons why predictions concerning future wood balances fail are changes in the growth rates of forests and the forecasts dealing with the growth in demand. Repeatedly, estimations of the future growth in the growing stock of wood underestimated the actual increases. As early as 1958, Gunnar Sundblad, CEO of Iggesund, concluded that estimations, more often than not, underestimated the growing stock of wood.224

"I would remind you that during the last 50 years - 1907-57 - the annual production of pulp and paper has increased from 800,000 to 5,450,000 tons. How many times during this period have we been told that the ceiling has been reached for our forest resources? The cellulose industry is only 75 years old and there are still great possibilities for continued expansion in the future." (Sundblad G. 1958:245)

Thirty-two years later Jan Remröd, CEO of Skogsindustrierna, concluded that Swedish forests had gone through a remarkable transformation in the twentieth century. “Even though they (the forests) have been extensively exploited by felling, the timber stock has been doubled and the growth tripled.” (Remröd, 1990a:36).225 The reasons for this development are to be found in a combination of the effects of industrial forestry and the repeated overestimations of future fellings. New methods in forestry increased both the annual growth of wood and the possibility of utilising more distant forests. In addition, the increasing industrial use of birch increased the stock available for industrial use by some 15%. Technical advances in the production process also increased the yield.226

224 This and a few other quotes in the following are also included in the case.
225 As Linder and Östlund (1992) stress, the time period chosen and the confusion in the definition of the growing stock of wood results in different conclusions about the size of the forests in Sweden, and thus the long term growth of forests. However, when forests are defined as the growing stock of wood for industrial purposes, the statement made by Remröd is most likely to be correct.
226 Eg., the introduction of thermo-mechanical pulp and the lower weight of newsprint paper.
The second reason given concerned the forecasted demand for pulp and paper. In the 1950's and 60's, demand grew in a predictable way. In the 1970's and the 80's, the more unforeseeable shifts in demand had a large impact on forecasting. A well known and trustworthy method of estimating growth in demand was to relate this to the growth in GDP. The rule of thumb was that growth in GDP was related to growth in pulp and paper consumption. This causal relationship was established in the 1950’s, as Axel Enström CEO of SCA described.

"Many highly qualified scientists and industry experts have during the past years put a great deal of work and effort into trying to find a way to determine and forecast the increase in consumption. Their findings are that: Consumption of paper and cardboard has a direct and positive ratio to increases in consumers disposable income, i.e. a corresponding, or usually larger increase in paper products."
(Enström, 1959b:77)

Enström commented on the uncertainty in these forecasts but somewhat reluctantly admitted that “this is all we have as a basis for our investment plans”. More accurate information about the relation between the general economic development and the consumption of paper was given by Lyberg (1959). He argued that for each one per cent increase in GDP, consumption of paper increased by 1,5 per cent. As all forecasts predicted a continuous growth in GDP, the prospect was good for the P&P industry. However, growth in GDP was underestimated in the 1950's and consequently the demand growth for pulp and paper products exceeded all forecasts made (Svensk Skogsindustri i omvandling 1971:251ff). Even so, the relation between GDP and the demand for paper and pulp was confirmed, and as mathematical models became more advanced, the reliability of predictions increased. At the end of the 1960's, the reliability of the forecasts was at its peak.

"The statistical improvement shown concerning market trends, production capacities etc., has resulted in similar conceptions of the present and future market situation, both in the long and short term perspective. “ (Carlgren, 1971:5)

The sharp fluctuations in demand during the 1970's induced experts to
question the reliability of forecasts. However the belief in the relation between growth in GDP and the demand for paper was still valid in the 1980's as stated by the well known consultant firm Jaakko Pöyry. “GDP is the economic figure which best explains variations in the consumption of paper.” (Jaakko Pöyry, 1985:15).

In the above, it has been argued that the focus on the long term balance between the supply and demand of wood resulted in a large number of reports on both market and wood balances. All of these included predictions that were taken seriously by industry experts, as the content had an impact on long term planning. However the many unpredictable factors, made the accuracy of the forecasts questionable and as conditions shifted they were frequently revised. Hence, the belief in the need for a long term perspective construct a process in which new forecasts are frequently demanded. Forecasts in which predictions sometimes change rather drastically.

The conclusion that emerges entails a number of issues that are permeated by the believed need for a long term perspective, and thus, the search for predictability. The need for long range plans emerges from the long term perspective in forestry and in machine investments. As this long range planning met radical and frequent fluctuations in demand, especially in the 1970’s, problems dealing with predictability emerge. The result is a gap in the stability assumed in long range plans and the frequent changes of the market. A gap that confuses many experts.

“It is illustrative that opinions and considerations can fluctuate within a couple of years in an industry which is based on the supply of raw material taking a generation to reach maturity.” (Landqvist, 1975:117)

The number of frequent changes gradually becomes a feature of the industry as Erik Sundblad CEO of STORA illustrates when he discusses the paradoxical situation that resulted when the institutional belief in a long term perspective met the sharp fluctuations in demand during the middle of the 1970’s.

“We people in the pulp and paper industry are lucky - in one respect. Our lives are not dull. Boredom is not our problem. The ups and downs give us ample amounts of thrill and excitement. Only three
years ago, our main problem was how to get a sufficient supply of fiber in the future. We looked into distant countries, we were willing to invest, and we were anxious that we were going to face a shortage of pulp. Consulting firms were busy and many wild projects were seriously studied. When recession came in 1975 and 1976 most of us, including myself, were convinced that this was part of the usual pattern......But everything went wrong. The business cycle didn’t behave at all. Instead of an upturn we got into the worst recession we have had since the thirties. And there we are with our high stocks and an extremely difficult debt situation.” (Sundblad E. 1977:1-2)

As stated in the above, the institutional belief in the need for a long term perspective emerged from a focus placed on large-scale production and a fear of a future shortage of wood. From this starting point several issues in the debate as well as the labels given these issues can be traced. However the focus placed on investments in machinery and the supply of wood also indicates that the industry concentrated on production factors and the production apparatus. This discussion will be expanded in the following (section 6.4). At this point, we may, however, conclude that;

A long term perspective in planning
is an institutional belief in the Swedish P&P industry

6.2 Co-operation as a favoured solution

A term frequently used in the previous chapters was “co-operation“. The value of co-operation can be expressed in terms of the intensity of competition in the industry. Co-operation and competition can thus be seen as opposite sides of the same coin (Brunsson and Hägg, 1992). Bengtsson (1994) studied the competitive climate in three industries, a climate that according to Bengtsson should be regarded as a part of the
industrial wisdom. Bengtsson, as well as Easton (1993), identify
different types of competitive climates, indicating that the intensity of
competition is not a given outcome in a given context, i.e., the degree
of product homogeneity in an industry. There are a great number of
factors that influence the relationship between actors in an industry.
Both Bengtsson and Easton argue that competition and co-operation
must be conceived as social constructions and subject to change over
time. From the analysis in chapter five the belief in co-operation as a
valuable solution to a wide range of issues surfaces. The fact that the
organisation of co-operation enters the debate as an unique issue in
itself on two occasions underlines the importance of co-operative
arrangements in the industry.\textsuperscript{227}

\section*{A history of co-operation}

The history of trade associations in the P&P industry are based on
attempts to reach stable market conditions (Melander, 1997).
Traditionally buyers were powerful, especially as they had the
advantage of awareness concerning market conditions. This was an
important advantage, as the producers of pulp and paper were small
and scattered over the country. Co-operation in sales and marketing
among producers was thus a needed and accepted way of changing this
situation. von Sydow, CEO of Scankraft 1932-1937, reflecting on
history commented on this co-operation as follows;

"But", the perceptive reader will say, "this is nothing other than an
obvious cartel." Of course it is! That was the open intention. One must
keep in mind that the then current economic philosophy, at least in the
West - with the exception of the U.S. - was convinced in its view of the
blessings of cartels."(Christian von Sydow 1980:107)\textsuperscript{228}

However, co-operation extended beyond attempts to regulate supply
and demand. Sjunnesson (1948) and Eneroth (1948) mention co-
operative initiatives in areas such as improved distribution, technical,-
quality- and contract standardisation. Furthermore the first attempt to
found a joint research institute was made in 1917/18. More important,

\textsuperscript{227} 1945-1858 and 1983-1990.
\textsuperscript{228} Christian von Sydow was also the CEO of Holmens Bruk AB 1938-1964 and
chairman of SPF 1964-1968.
however, was the foundation of STFI (Swedish Forest Product Research Institute) in 1942.

Until 1945, co-operation had been used as a solution in a wide range of issues. Joint organisations such as SCF, SPF, STFI, SPCI etc. were founded on the premise that co-operation and networking were useful means of aiding the development of the industry and thus in combating industry wide threats, but also to take advantage of industry wide opportunities (cf Bergek, 1983). Reflecting on the need for further expansion of (joint) research, Gunnar Sundblad, CEO of Iggesund, described the role of STFI in 1942.

"The availability of good researchers and their mutual co-operation, co-operation between the industry and the State, and co-operation within the industry is our principal aim, upon which the work of the new Institute should be based. The previous atmosphere of secrecy is a thing of the past and we must now realise that technology is not the result of "magic", but that progress and development is best served by a free and open exchange of results and experience." (Sundblad G. 1942: 2-3)

Hence, co-operation was a well known and accepted way of organising within the P&P industry in 1945. With this in mind it is of no surprise that co-operation also became a theme during the post-war period. In almost all the issues discussed, co-operation was one of the solutions suggested.

In the issue of increasing costs and government regulations, co-operation, as a solution, was based on the advanced system of self-regulation constructed during the Second World War. In the issue of market balance, co-operative attempts to overcome imbalances utilised the relational structure developed in the 1920's and 1930's. In the issues focusing on the supply of wood, attempts to co-operate emerged gradually. In these issues, attempts mainly focused on three topics; the increasing need for adequate predictions concerning the future supply of wood, methods of mechanisation and rationalisation in forestry, and attempts to improve negotiating positions on the market (i.e. to

229 As mentioned in the introduction, from early on, separate employer organisations dealt with labour relations.
develop purchasing cartels).

In the following periods, this pattern developed further. In the issue focusing on trade liberalisation, a belief in sector specialisation was expressed in the "live and let live" policy. Such an example is the co-operative initiative between West European and Scandinavian industries. Furthermore, after the free trade agreement was reached with the EEC in the 1970's, attempts were made to establish an European trade association (EPI) - the specific aim for its formation being to increase co-operation between the Scandinavian and West European P&P industries.

Co-operation as a valuable solution

The best example of co-operation as a solution is probably when the acute shortage of wood appeared in 1973/74. This shortage was the starting point for a large number of co-operative initiatives. Several large research projects, voluntary agreements concerning wood consumption and agreements about co-operation in investments, were some of the initiatives adopted to employ co-operation as a means of reducing the effects of the shortage.

The usefulness of co-operation as a solution depends on the probability of reaching consensus. If actors recognise the same issues and arrive at similar interpretations, conditions for co-operative initiatives exist. A number of such issues are reviewed above. The same opportunity to reach consensus did not, however, exist in all issues. The Forest Owners' Association, for example, did not always regard an increase in the price of wood as a threat, as their owners (i.e. members) benefited from high prices of wood (at least in the short term). In this case they differed from the rest of the industry. This dissension was one important reason why a resistance was mobilised against the entrance of the Forest Owners' Associations in the P&P industry (cf Gummesson, 1993; Olsson, 1986).

A further example of the role of co-operation was during the 1970’s when the industry's future was threatened by low profitability. As described in chapter 4.5, the investigation regarding the future of Swedish industry carried out by the Boston Consulting Group (BCG) was followed by a suggestion from Bo Rydin (CEO of SCA) - to

---

230 See the shortage of wood in 1945-1958 (section 4.3).
organise a ‘Swedish pulp company limited’. The purpose was to restructure and rationalise a large part of the industry by means of this co-operative initiative. The suggestion was resisted by other experts in the industry.

“But when a representative of a major privately owned forest industry asks the Government for financial aid, in order to create some sort of holding company for pulp production, then I, at least, must react in the strongest possible way. If the private forest industry is incapable of solving its own investment problems itself, then it has very little justification for its continued independent existence. These comments must also apply to companies who experience difficulty in themselves financing the expansion or renovation of their pulp manufacturing facilities.“ (Carlgren, 1979:6)

Note that in his statement, Mats Carlgren (CEO of MoDo) did not reject the idea of a co-operative arrangement to solve the problem. His major objection was that some companies were favoured by subsidies from the government at the same time as other companies had been left to deal with similar problems on their own. The same arguments were used by Erik Sundblad in 1977. Sundblad was most outspoken about the need for further co-operation among producers.

“We have to govern the supply and demand situation and we have to govern the price situation. This is necessary, if we want to maintain a free economy, our free industries, and, consequently, our jobs. Nobody in the industry is helped by these wild price fluctuations. Nobody profits from them. Nobody wants them. It is the duty of the industry leaders to see to it that we achieve price stability, and it is certainly within reach of our capability.“ (Sundblad E. 1977:9)

He was however aware of the changes in competition legislation. Hence, he foresaw that obstacles could be raised against his suggestions. To meet this anticipated critique he argued that “Anti-trust and anti-cartel laws are written for a completely free economy. They are not quite so evidently and exclusively for the good of the public in a twilight zone economy.“ (Sundblad E. 1977:10)

The trade association, the Swedish Forest Products Research institute
(STFI), the engineering club (SPCI) and several other organisations reflected the strong belief in co-operation. A quote from the annual meeting of SPCI in 1950, illustrates the importance of this organisation for the co-operative climate in the industry.

“The formation of our association caused a considerable change. Plant managers, technicians and engineers could meet and get to know each other, which soon resulted in an open and trusting dialogue and co-operation. This was of enormous value, not only to the engineers, but also to the development and success of the industry as a whole.” (Schiller, 1950:137)

This climate continued to be of importance for the development of the industry (cf Pihlgren, 1970). In 1974 Bo Wergens, CEO of SPCF commented on the industry wide research projects that were in progress at that time.

“I dare state that the forest industry /of all industries/ is unique in at least one respect ... this is the completely open and unrestricted exchange of technological information between different companies. It has been found that everyone benefits by sharing one's own experience and knowledge, and in return receiving access to all your colleagues' successful developments.” (Wergens, 1974)

The reproduction of co-operation

The legitimacy of industry-wide organisations was built on and at the same time reinforced, the institutional belief in co-operation. This reinforcement was the driving force towards further co-operation - as the infrastructure expanded, co-operative solutions were presented as a standard way of solving evolving issues.

This reasoning can be extended, with statements from interviews and articles on how career paths in the industry emerged (cf Svensk Papperstidning, 1995). Paths that often began at the joint research institute or in a similar industry-wide organisation. Already in 1959, the existence of career paths was recognised (Sundblad G. 1959). A specific career path was still recognised in 1985.
“STFI has also the function of serving as a recruitment base for the pulp and paper industry. Many a Swedish pulp and paper engineer started his career with two, three or four years at the STFI. This is a very efficient way of technology transfer.” (Sundblad L. G. 1985:4)

One may speculate if this career path in itself was not a base for co-operation. Individuals following the path shared similar experiences and developed both professional relationships and overlapping friendship networks. This formed, a basis for co-operative initiatives. Following the theory about enactment processes described in chapter two (cf Porac (1989) and Gagliardi (1986)), a proposition can be made regarding the continuous reproduction of the institutional belief in co-operation. As individuals began their careers at the joint research institute, they built up a network of contacts. As several left the joint institutes to work in industry, a network of individuals emerged throughout the industry. When some reached higher executive positions, they could use this network to great advantage. Hence, it can be assumed that these individuals further supported co-operative initiatives and consequently organisations facilitating co-operation.

This argument describes a continuous process, by which co-operative initiatives could continue to increase, at the same time that industry-wide organisations, founded on the belief in co-operative initiatives, were able to extend and entrench their legitimacy. This was however not the case in the P&P industry. During the 1970's and 80's, the base for co-operative arrangements slowly disappeared. In the following chapter this process will be discussed in more length.

Co-operation in marketing, purchasing and supply of wood

As described above co-operation was frequently used as a solution in a number of areas. The belief in co-operation as a standard solution was especially strong in issues related to marketing, purchasing, the regulation of pulp and paper production volumes, basic research and contacts with both the authorities and the public. In marketing, the initiative taken by the paper trade association (SPF) in 1961/62 to organise a joint sales company was the final attempt to follow a centralised sales organisation model. From that point co-operation in selling and marketing took place in more informal settings.

When raw materials were purchased, the use of co-operation was
frequent, especially when it came to organising statistical surveys, purchasing cartels and import of wood. However, as noted above, co-operation was restricted between private owned companies and companies controlled by privately forest owners or the state. This was understandable as the three types of organisations often pursued conflicting aims.

These findings indicate that a strong belief in co-operation existed in some areas while a more competitive attitude dominated in other areas. It can be argued that this division illustrates an instrumental driving force towards co-operation (Bonoma, 1976). Instrumental in the sense that the choice of co-operation and competition were driven by functional judgements. The logic in the discussion that deals with co-operation as a basic belief, as well as the initiation of the self reproducing circle above is, however, that co-operation gradually becomes valued in itself (Bonoma, 1976).

Once again reactions towards the acute shortage of wood in 1973/74 can be used to illustrate the phenomenon. As the shortage was identified a need for actions emerged. Reviewing the situation without any previous knowledge of the context, the shortage could be dealt with in either a competitive or a co-operative manner. Following a competitive line of thinking, prices would go up and therefore entrepreneurs should start an importation of wood. Companies blessed with a self-sufficient supply of wood or substantial financial resources would survive and those without would quickly go bankrupt. A result of this development should have been a revolutionary competitive climate (Bengtsson, 1994), in which a transformation of pressure inducing radical change evolved (cf Dahmen, 1980). However, the competitive way of solving the problem was not a trustworthy solution in the Swedish P&P industry. The reason for this is that a long

---

231 Either listed on the stock exchange or family owned companies.
232 As noted above the aim of the companies owned by the private forest owners was first and foremost to enhance the conditions of small forest owners. The state owned companies were also driven by aims that in some respects were in conflict with maximisation of profits. Anell (1991) discusses for example, the possibility of offering increased employment in the north of Sweden as one of the goals that led to the expansion of the state owned companies. Indications of any general resistance to co-operation as a solution can not be found in the data collected from these companies.
tradition of co-operation existed. A system of infrastructures, relational structures and belief structures, favouring co-operative initiatives, had been constructed during a long period of time. These structures offered co-operation as a natural and functional solution to the shortage of wood. The trade association, the purchasing cartels, the joint research institutes were all organisations that offered ways of organising co-operative solutions. Agreements regulating the consumption of wood, research on increased utilisation of available resources and an organisation for joint importation of wood were quickly established. The conclusion is obvious, i.e. the existing belief system, favouring co-operation provided a solution that was functional in this context.

Co-operation in investments

Finally, it must be noted that co-operation did not extend to all areas. Investment plans exemplify an area in which co-operative attempts have never had long lasting effects. The 1973/74 shortage of wood also illustrates this point. One of the solutions proposed to solve the shortage was co-operation in investments. A well known and often quoted event in the industry's history illustrates this; the investment plan agreement between Holmen and the Forest Owners' Association in 1974 (discussed at length in the case). Rydbo (1974) considered the future shortage of wood in Sweden. He refers to the agreement between the Forest Owners' Association and Holmen and asks: "Is the latest agreement between Holmens Bruk and the Forest Owners' Association just a "one off" or can it be seen as the start of a new trend?" (Rydbo, 1974:44). Rydbo answered his own question with a "no". His was a pessimistic attitude that was probably based on the history of the industry. The short term struggle for expansion seems repeatedly to be given priority over consideration of the long term effects.

"It is not our ignorance of possible felling levels which has led to this situation, but the lack of any concerted action. Each individual company looks after its own interests, of course. But all of them are taking out "mortgages" - on the same supply of raw material."

233 A debate in 1976 indicates that Rydbo was right when he took a pessimistic view on the future (cf SIA tidningen 1976:9 page 18.

Åke Pihlgren, CEO of Billerud discussed areas for co-operation in 1964. Considering investments he expressed a reluctance regarding co-operation.234

“Therefore I do not believe that any form of mutual investment planning would be successful in which companies could be given exclusivity on one or more products... I am convinced that the individual product choice is so vital for the free market economy that decisions must be taken on an individual basis and judged in the light of experience and available data.“ (Pihlgren, 1964:56-57)

But even though the institutional belief in co-operation does not encompass all activities in the P&P industry, it can be seen that co-operation was an institutional belief that emerged in a large number of issues. As illustrated, the belief in co-operation was confirmed in the infrastructure and relational structure of the industry. A confirmation which made the belief a functional reality. To summarise,

Co-operation as a solution is an institutional belief in the Swedish P&P industry

6.3 The North American pulp and paper industry: a point of reference

234 Rydbos fear of a dead-lock in behaviour is also partly confirmed in the debate about investment waves in 1994-1996. A business magazine commented on the development in the following way. “The investment decisions on new production capacity tend to be made when there is a strong financial situation, in times of industrial boom. Then, after a couple of years, production is started at the same time - when there is a decreasing demand, resulting in too much production capacity and a dumping of prices. “The “six thousand dollar question” is whether this pattern is to be repeated once again or whether the forest industry will opt for a “soft landing” rather than the “nose dive” made in 1990-93.” (Männadens Affärer, October 1995:10)
The North American P&P industry became important as a model for the future development of technology, marketing and strategy during the period immediately after World War Two. The North American industry can thus be seen as an important reference group for the Swedish P&P industry. According to Kiesler (1978) the focal group feels some kind of psychological involvement with the group that is perceived as a reference group. The theory of reference groups is well developed on the individual level but is also used to examine thoughts and behaviour among groups of individuals and organisations (Shibutani, 1955; Peteraf and Shanley, 1997). Figenbaum and Thomas (1995), for instance, discuss the role of strategic groups as points of reference for single companies and conclude that strategies were highly related among the individual companies in these groups.

**The North American industry offers threats and opportunities**

This kind of psychological relatedness is evident in the P&P industry after the Second World War. Hall (1951) provides a background, when he reports on the effects of the Marshall plan on West European P&P industries. He refers to the large-scale and specialised production of pulp and paper in North America. Furthermore, he is impressed by the development in the packaging area, where integrated pulp and paper units were extremely efficient.

Hall referred to the Technical Assistance Programme, a part of the Marshall plan. The programme included an extensive transfer of knowledge from the North American industries to their West European counterparts. The assistance in the P&P area was only one small part of this programme. Hall’s enthusiasm was in line with several other commentators that referred to the technological development in the North American P&P industry as a role model for the Swedish industry (cf Landberg, 1990). Lars G. Sundblad describes the general feeling at this time.

“I got the clearest impression (when travelling in the United States) - this was probably felt throughout the industry - that they had developed an extremely competitive industry structure. It was up to date and far superior in terms of size and profitability.... It became increasingly obvious and apparent to the company directors that we
The integration of production of pulp and paper and further integration into converted products, the ambition to achieve added value through increased quality, large-scale production, specialised machines to increase speed and the development of new consumer products - were all developments that were seen as highly relevant for the Swedish P&P industry as they limited fluctuations in profitability and costs.

References to the North American P&P industry as a model often pointed to opportunities for development. However, at the same time, references to the same industry, as a real and potential threat, also increased substantially. Before the Second World War Sweden exported large volumes to the US and in the 1950's there still existed hope for a return to this pre-war export pattern. The recession in 1958, seemed to be the final confirmation that a change had taken place in the pattern of trade. From then on, North America was no longer considered an important export market. On the contrary, the North American P&P industry emerged as the most important threat to the prosperous development of the Swedish industry, as North American companies began to compete in Europe.

The importance of North American development is obviously related to the issue that dealt with the increasing competition from the US and Finland. The development in North America is, however, applicable in several issues, i.e., the emerging threat from plastics as a substitute was influenced by developments in North America.

As described in chapter four, the focus placed on the North American industry continued during the 1960’s as North American companies successfully competed on West European markets. Eije Mossberg, CEO of SCA illustrates the importance of the North American industry.

“The competition that the Nordic forest industry can expect during the next two decades, will, for the most part, originate from North America.” (Mossberg, 1968a:5)

The solution to this issue also originated from North America!

“I can therefore envisage the necessity of creating different forms of
pan-European concerns and conglomerates which would be as large, as integrated, and as efficient and profitable as those in North America. We must now start to think and act as Europeans and forget and reject the concept of historical national boundaries. “ (Mossberg, 1968a:8)

Both issues focused on the long term supply of West European markets and the North American wave of investments in Europe during the 1960's, and emphasised the North American P&P industry as a reference point. One of many examples during this decade was the change in transport systems that took place during the 1960's and 1970's. Technological advances led to a decrease in transport costs in the 1960's. This development was a potential threat to the Swedish P&P industry as imports mainly from North America to Europe, became more competitive. The response was to increase efficiency in transport systems235 (SCA tidningen, 1965; Svensk Papperstidning 1974:15).236 The motivation for this came from the US (Forsgren and Kinch, 1970).237 That is, in this development the dual role of the North American P&P industry emerges, both driving the need for change and providing solutions. The attempts to lower transportation costs was followed by a wave of acquisitions in Western Europe. The following quote describes the role of the North American P&P industry in this process.

“Our then Sales and Marketing manager at ASSI had marked a large map of Europe with all the American owned converters, which he then presented to the Board. They were astonished and quickly decided that this development should be countered. Thereafter European converters were acquired one after the other. SCA did the same,

235 A further driving force was investments in production capacity abroad. SCA took part in a joint venture in Canada (1964), in which the idea was that SCA would market the output in Europe. The transport system constructed in SCA was thus partly designed to fit trade over the Atlantic. The joint venture was terminated just a few years later.

236 SCA’s system, constructed in 1964-1967, became the role model for a number of similar systems.

237 Unconfirmed sources indicate that a system introduced by Crown Zellerbach inspired the change in SCA.
roughly at the same time, but perhaps even more aggressively than ASSI.” (Wearn Bugge, 1995)

As the wave of acquisitions diminished and the overall growth in demand remained high, attention paid to the activities of the North American P&P industry decreased during the first part of the 1970’s. In the following years, the recession and fluctuations in exchange rates once again reinforced the importance of the North American industry. Bo Wergens described conditions in 1977.

“When the American Pulp and Paper industry experienced overcapacity on the domestic market it increasingly turns to the Western Europe. Because of this, Sweden experience a severe increase in competition on its main markets. Then there might be obvious difficulties in exporting pulp and kraft liner board.” (Wergens, 1977:84)

So once again, North American development surfaces as an important point of reference for the Swedish industry. The production concept that developed in the 1950’s and 60’s as well as the international operations initiated in the 1960’s and 70’s were highly related to actions taken by North American companies.

It must be further noted that this relationship to the North American P&P industry was reproduced in many actions. Following the example set by North America, the Swedish industry invested in the production of kraftliner in the 1960’s. At the end of this decade, the North American industry, as described above, acquired producers of corrugated board in Europe. Most of the companies that were acquired were customers (or potential customers) of the Swedish producers of kraftliner. That is, the decision to adopt the North American production concept in the early 1960’s forced Swedish producers of kraftliner to reply to the acquisition wave some years later and initiate a wave of acquisitions of their own. That is, it can be argued that the initial decision to follow the examples set by the North American P&P industry, to some extent, determined future actions. The reference was thereby confirmed in actions.

Focusing on the industry level, the North American P&P industry has been the most important point of reference during the post-war period. As will be further discussed in the next chapter, this use of the
North American industry as a point of reference changed in the 1980's when Swedish companies grew larger and conditions changed. To summarise the development up to that point, the following institutional belief emerges,

*The North American P&P industry is as a point of reference, offering challenges as well as solutions for future development.*

### 6.4 Bulk products for a competitive advantage

The production concept so distinct in the post-war period had long been in use in some parts of the industry (mainly newsprint). However, after the war, the concept became the dominating recipe and was frequently referred to over the years to come. Gradually, the belief in the integrated production of pulp and paper, bulk products and large-scale production was transformed into an institutional belief. In the words of Grinyer and Spender (1979) words, it became a recipe for success, i.e., a solution used in several issues.

The basis for the production concept was, as discussed in the previous section, the development in the US. However, the arguments used in the industry to introduce the concept, not only referred to the development trends in the US, but complementary arguments also stressed Sweden's comparative advantages. This line of reasoning follows the "classical theory" of comparative advantage (cf Porter, 1990).

According to this theory, the combination of natural resources and geographic location determines the structure of the industry. Sweden with its natural resources, i.e., vast forests (mainly pine and spruce), hydro-electric power, and its geographic position, close to West European markets, had a natural advantage in the production of forest products (Sölvell at al, 1991). Within the limits set by these natural resources, industrial technologies developed. In the case of Sweden and the forest industry, a focus on bulk products was motivated by the comparative advantages of these products when compared to the production of customer specialised products; products traditionally produced in the south and middle of Europe. The "live and let live"
policy (described in section 4.2 and 4.4) illustrates how this policy was used as a means of attaining a regional division of work between pulp and paper industries across Europe.

Giving the development of this production concept a processual character, Nelson and Winter (1982) use the concept of routines to describe how technologies tend to be encapsulated in behaviour and are thus sustained in time. Utterbeck and Abernathy (1975) further argue that technological changes tend to develop incrementally and in a processual manner in industries that are dominated by large-scale production and specialised production technology. One of the examples Utterbeck and Abernathy use is the P&P industry.

Choice of the direction of development

Petersson C. (1996) discusses the developments in the Swedish and Finnish P&P industry during the post-war period. His conclusion is that the major difference between the two countries is to be found in their choice of development. Swedish industry faced the challenge from the North American industry and clung to this technological choice during the entire post-war period. Initially, the Finnish industry made the same choice but changed production concept during the 1960's when they chose to place emphasis on more value added products. The change that occurred in Finland was used to avoid competition from Sweden and the North American P&P industry. In conclusion, the choice of how to relate to the North American development was one of the most important strategic decisions to be taken by individual companies during the post-war period (Petersson C. 1996:192).

Petersson's conclusion supports the institutional belief in a single production concept, that emerges in the present analysis. Comparing the two lines of development in Finland and Sweden, he also stresses that the choices were not determined by exogenous factors. Rather the initial choices made resulted in infrastructural forms which were difficult to neglect when considering further actions. Petersson C. (1996) illustrates how the wave of investments in newsprint and packaging machines during the period 1955-1965 became the bases for further incremental investments in Sweden, gradually increasing capacity in the decades to come.
The argument regarding a circular relationship between the initial choice of production concept and the continuous belief in this concept does not explain the change in direction that took place in Finland during the 1960's. The shift is explained with three arguments. First, the Swedish industry had a comparative advantage in the production of bulk products which made Finnish producers choose a different line of development. Second, the sales organisations were organised differently. A large part of the Finnish industry were members of a jointly owned sales organisation. This organisation was able to mobilise extensive resources enabling it to detect new trends in consumer's use of paper at an early stage. Third, due to the Finnish style of management and the role of the P&P industry in the Finnish economy, Finnish top executives were more inclined to take risks (cf Räsenäns, 1989). Furthermore, Petersson stresses that the macro economic conditions in the two countries differed when the changes were undertaken in Finland. This was especially the case in the 1970's, a decade in which many projects were postponed in Sweden, which were intended to implement value added strategies similar to those initiated in Finland during the 1960's and 70's.

However, as initially noted, the institutional belief in a single production concept did not cover the entire industry - at least not during the first decades after the Second World War. A large number of companies still continued to produce market pulp and/or customer specialised products.238 As described in the issues during 1945-1958, the institutional belief in one single production concept described only the dominating line of development. The number of market pulp producers decreased. The producers of specialised paper products experienced only a limited expansion. The future obviously lay in the production of bulk products which could offer a competitive advantage for Swedish producers on the world market. The investment wave, ending in the middle of the 1960's, indicated that the choice had been made.

"The new, now mostly completed expansion programmes, show that companies, taking into consideration their competitive situation, have chosen to continue with their traditional policies of similar quality

238 Mainly to supply the domestic market.
and product specialisation. “ (Landberg, 1963:420)

Adding value - a way to develop the production concept
The concept of bulk products was applied in an industry in which one of the most vital issues was the long term balance between the supply of and demand for wood. In the first phase (about 1945-1960), it was mainly the existing production of market pulp that was integrated with the production of paper. The need for extra quantities of wood in this phase was marginal. In the 1960’s, the end of this integration phase was foreseen and together with the realisation of a limited wood supply, the production concept was extended and as a result the search for products giving a higher return emerged.

“Thus there is still room for expansion in the supply of raw material. However, within the next decades a ceiling will be reached for further expansion... Regarding this last factor, I, and many others within our industry, believe the only way forward is to increase the level of refinement of our basic products.” (Pihlgren, 1965:2)

These attempts were aimed at avoiding a bottleneck in the supply of wood which could be seen in the early 1970's, but it was obviously also inspired by the direction of development in Finland. The rather broad idea of "adding value" could be accomplished in a number of ways. Pihlgren, above, focused on the development of the physical product; improved technical quality of the product, improved functionality, and/or new and innovative products. A somewhat different way of interpreting the search for increased value was to focus on a continuous forward integration and an increase in the marketing function.

“Our expansion and development programmes are now increasingly aimed at the refinement of our products. In this way we are able to come much closer to our end-users. Refine and complete. Of course we must learn new, more detailed and more targeted sales and

---

239 The total consumption of wood increased substantially during this period. This however, was mainly due to the expansion that took place in the south of Sweden; a region that at the time had a surplus supply of wood.
marketing skills in order to intensify sales efforts. Production and marketing must work much more intimately together so that we can respond quickly to changes in customer demand.” (Sundblad E. 1966:4 page 2)

This ambition stressed the emphasis placed on production within the P&P industry at the time. In a broad review, it is reported that low profitability at the end of the 1960’s made companies pay more attention to marketing (Svensk Skogsindustri i omvandling, 1971). However, the majority of companies continued to use agents in most markets. Comments made on different occasions indicate that it was a long process to change the focus from production. Peter Wallenberg, representing the Wallenberg sphere, reported on this production orientation when he became a board member of STORA in 1974.

“The Board and Management of Stora Kopparberg were very much focused on production and plants... concepts such as "customers" or "markets" were hardly ever mentioned. Technical development mainly focused on making production processes more cost efficient and surprisingly little attention was paid to what the customer actually wanted.” (Wallenberg P. In STORA och Peter Wallenberg, 1994:27-28)

Sigvard Bahrke, CEO of ASSI, brought up the same subject while addressing the Swedish Association of Pulp and Paper Engineers (SPCI) in 1981.

“Our sector is known to be concentrating on technology and production processes. This perception reflects extremely well on the abilities and competence of our engineers but also implies an imbalance with other factors, vital for the future development of our companies.” (Bahrke, 1981: 25)

This indicates that knowledge and interest in marketing was low in many product areas and it can thus be argued that the development of new products and production techniques were mainly based on improvements in prevailing technology. With this strong production orientation in mind, most experts focused on the addition of new, but highly related products in the present product range, or the gradual
increase of quality in existing products, when considering the necessity of change.

The introduction of “more value-added products“ in the production concept referred in many cases, to LWC (Low Weight Coated paper). The market for this product increased rapidly in the 1970’s and the Finnish industry invested heavily at this time. Several plans for LWC investments were reported. Södra, Holmen, Ncb and STORA were some of the companies that presented plans in this direction. Another means of adding value was to undertake related diversification. The SCA-Mölnlycke merger in 1975 was the most celebrated initiative in this direction. An initiative obviously motivated by the predicted shortage of wood and the need for forward integration. Due to the recession in the following years, most of these plans for diversification never materialised. Recognising this, Lennart Stenberg, examining the development perspectives for the P&P industry in 1979, almost desperately urged for a focus on more value added products in the future (see also Jaakko Pöyry, 1977). As a result of unrealised plans for value addition Bo Berggren, CEO of STORA commented on the SCA/Mölnlycke merger in 1984 as follows,

“This demand for profitability can - and should - be seen in comparison to other companies within the industry. SCA has succeeded better than Stora Kopparberg and therefore presents us with our greatest challenge... We often hear: "The only difference between Stora Kopparberg and SCA is Mölnlycke." There is much truth in this, as Mölnlycke stands for our present lack of dynamism and profit orientation.” (Berggren 1984, in STORA och Peter Wallenberg, 1994:72-73)

To summarise, the Swedish P&P industry is characterised by a long restructuring process after the Second World War. A process led by an institutional belief in the integrated production of pulp and paper with a focus on bulk products. This process lasted for decades. During the implementation of the concept, further ideas evolved including a continuous focus on value addition, expansion of pulp production abroad, the acquisition of converters in West Europe and the expansion of the range of products to include products such as writing
paper and LWC. But the focus on bulk products produced on integrated production lines was still the core of the production concept.

**An institutional belief is that the Swedish P&P industry’s competitive advantage lies in the integrated production of bulk products.**

---

6.5 The role of the pulp and paper industry in Sweden

The fifth and final institutional belief that emerges from the analysis, focuses on the role of the P&P industry in Sweden. As the analysis proceeded, it became obvious that the relations to the public and to the authorities were of great importance in many issues. These two relations indicate how industry identity developed in the post-war period (Dutton and Dukerich, 1991). The development of this identity is related to the labelling of issues. In industries regarded as successful, growing and thus described as important parts of future society, new issues are labelled as opportunities, offering new challenges for entrepreneurs. Obviously, the logic works in reverse as well. Industries facing public pressure, bad publicity and in the eyes of experts, are in a state of decline, will more frequently label new issues as threats (cf Dutton and Jackson, 1987; Jackson and Dutton, 1988; Peteraf and Shanley, 1997). In chapter five, the majority of issues were labelled as threats. In the following, the reasons for this labelling will be examined. Two examples chosen to exemplify the institutional belief regarding the role of the P&P industry in Sweden, are 1) Its relation to the Swedish government and 2) environmental issues.

---

240 In chapter eight the investments in writing paper are further discussed.
The relation between the authorities and the industry during the years immediately after the Second World War was to a large extent dependent on a combination of pre-war history and recent experience during the war years. The forest industry was, traditionally, of great importance to the Swedish economy.

"The Pulp and Paper industry is of vital importance to Swedish exports. In 1931, 20 % of the country's total export was pulp and paper. In 1937, a record year, this had increased to no less than 30 %." (Sveriges industri, 1948:393)

The P&P industry was important to the Swedish economy as it contributed to the trade balance, but the industry was also important as mills were mainly located in regions with otherwise low industrial activity; i.e., the north of Sweden and the countryside (Nilsson, 1979).

As stated in chapter four, the relationship between the industry and the authorities was good during the war. Gummesson (1993) reports that the relation was, for some industrialists, so beneficial, that they wanted to maintain the war time regulations after the end of the war. However, a feeling of being obstructed by the authorities spread throughout the industry after the war, as difficulties in competing on the international market scene increased. Markus Wallenberg, representing owner interests in several pulp and paper companies, discussed the changes taking place at the annual meeting of the SPCI in 1950.

"Soon, permission must be sought from one authority or another for practically everything: export, import, buying new machinery or building a new plant." (Wallenberg M. 1950:227)

Wallenberg concluded that despite the “atmosphere of regulations“ the wealth of the nation had increased after the war. The reason for this increase in wealth was mainly due to the export of forest products. The general feeling of being obstructed by the government escalated in the decades to come.

Moving ahead to the 1970’s, the relationship to the public and the authorities was gradually becoming more complex. The increasing attention the public were giving to environmental issues was one important reason for this. Hellström and Reunala (1995) summarised
initial reactions from industry experts to the public's increased awareness of environmental problems.

“Within the forestry profession, the public criticism of forestry was first met with confusion, hurt feelings and rejection.” (Hellström and Reunala, 1995:32)

At the time these feelings were expressed in many speeches, however, Hellström and Reunala stress that the industry adapted to the changes in public opinion during the 1970’s. Investments to reduce pollution were paralleled by an increasing number of investigations as well as increased legislation. In these circumstances and keeping in mind the immediate shortage of wood, Nils Landqvist, CEO of Korsnäs, formulated the general opinion in the industry.

“The forest industry has such an overwhelming importance for our country that it must not be used as a political tool for any purpose whatsoever. We must all realise our responsibility for the long term development of our industry and its importance for the country and its trade balance.” (Landqvist, 1975:117)

Following the prolonged recession towards the end of the 1970’s, criticism directed at the authorities grew. The argument was that industry related problems such as high wages, increasing costs, unfavourable exchange rates and extensive regulations, were once again greatly reducing P&P industry’s competitiveness. Industry experts saw their problems as a national problem. “Billerud's problems are Sweden's problems” as a headline stated in 1977 (Billerudsörnen, 1977:4). Emphasising the importance of the industry for Swedish society, Erik Sundblad related the future of the industry to the future of Sweden.

“The impact of the forest industry on the Swedish economy, being by far the biggest net currency earner in the economy, is such that this industry has to be kept alive and has to be kept competitive. The nation is dependent on it, the government has to take care that it is sound. There is no way, by which our competitors in other parts of the world can strangle us. Should they really come close to that situation, they will no longer compete with industries and companies, they will
have to compete with a nation. “ (Sundblad E. 1977: 6ff)

At the beginning of the 1980’s, the industry took a more organised stand in the societal debate. The trade associations standpoint on several issues was marketed in a more active way and the importance of the industry for Swedish society was an often repeated message. In this debate, environmental issues were often brought up.

“We often hear in the general debate that we must be prepared to pay for a clean environment. The problem is that no-one is willing to finance these costs. Our overseas customers will not agree to pay higher prices so that we can protect the Swedish environment. Nor will any others reduce their claims in other areas, for example, wage negotiations, to neutralise the increasing costs for environmental protection on our overall cost situation.” (Rydin, 1982:2)

The harsh criticism directed towards authorities was formulated as a result of the long recession and a low trust in the economic policy. As Sweden devalued and demand unexpectedly increased, most of the criticism lessened during the following years. However, confidence in the Swedish economic policy was still low and the trade association continued to argue strongly against the policy changes in energy and environmental issues.

Surfacing now and then is the difference between Sweden and Finland in this respect. The proposal to form a joint selling organisation in the early 1960’s reflected, amongst other things a feeling of disquiet with the challenge from the Finnish industry. There was a general assumption that Finland was able to act moreconcertedly on the market place and was also more strongly supported by the Finnish government in international negotiations. In a quote from 1993, Jan Remröd (CEO of Skogsindustrierna), summarised the general feeling.

“Within the Swedish forest industry we are jealous of our Finnish colleagues. They are supported by the whole of Finnish society which is fully aware that if the Finnish forest industry suffers, so does Finland. No major industrial, commercial or environmental decisions are taken without consultation with the forest industry with regard to any possible effects on Finland’s competitive situation. Thus the whole
nation supports its forest industry... Swedish industry is not asking for any state support or subsidies. But it is crucial that we are given the opportunity to conduct a bi-lateral dialogue with the government and authorities in order to maintain and protect Sweden's vital international interests." (Remröd, 1993:2)

This difference underlines the view of the pulp and paper industry as being unfavourably treated by the authorities. Adding value to Swedish natural resources and thus contributing to the welfare of Swedish society, it was felt that authorities and the public should protect and encourage the industry. However, the feeling was that in most issues the Swedish industrial and economic policies acted against the interests of the industry and thus were ultimately against the interests of the Swedish population. In 1988, when international acquisitions reached a peak, Bo Wergens CEO of SCPF urged that,

"Politicians must, instead of treating our industry as a political football subject to tactical short term environmentally facile solutions, treat it as a valuable export industry and increase its possibility to work according to accepted standards of rational and efficient production." (Wergens, 1988:17 page 18)

The criticism of the Swedish industrial policy was thereby seen as one important motive for the wave of international acquisitions which took place at the end of the 1980's. As an example, Peter Wallenberg declared that the position taken by the government in issues such as the future of nuclear power and the relationship to the EEC were important reasons for STORA's increase in international localisation of production. (Wallenberg P. In STORA och Peter Wallenberg, 1994:154)

This illustrates how the industry felt opposed by domestic economic and industrial policies, combined with, what the industry perceived as, unfair criticism originating from the environmental movement (cf Hellström and Reunala, 1995).241 In as much as the industry perceived

241 Hellström and Reunala describe how the environmental movement developed in similar ways in six countries. In all countries, the development caused conflicts related to forestry. They explain this as, "The principal reason for public criticism of forestry was a change in values, especially a strengthening of recreational and
their position - and self-value - as being opposed and thereby described as a problem, rather than being recognised as a solution to the restoration of Swedish welfare, the industry was forced to assume a defensive attitude. This attitude caused problems as, for instance, illustrated at the end of the 1980's, when the chlorine issue entered the debate (see chapter 1). Industry experts argued that the desired changes were unnecessary and the technology required did not exist. If this was even possible, an extensive period of time would be needed to develop new technologies. That is, they assumed a defensive attitude in the debate. Solutions, however appeared after only a few years as pressures increased and new technological breakthroughs were made. This situation was, by many outsiders, interpreted as the industry's lack of responsibility, and thus the view of an industry resisting, counteracting and delaying necessary changes, was reinforced. As we leave the case in 1990, environmental investments undertaken in the past are gradually being re-evaluated within the industry and were even perceived as the foundation for a stronger competitive edge (cf Skogsindustrierna Annual Report, 1989).

“It is fascinating to look back on the competent and purposeful work undertaken and carried out by our researchers, chemists and engineers during the 25 years it has taken to transform our previously old-fashioned, wasteful industry into a new, responsible industry of the future. Now developments in chlorine-free bleaching will be extended. It will, in fact, be cheaper to build new, pollution-free mills. Water usage will be reduced by 90%.” (Croon, 1994:4)

Research indicates that a defensive attitude in one area leads to a defensive and problem seeking attitude in other areas as well. That is, an identity characterised by problem seeking reproduces itself as events and actions are labelled as threats (cf Dutton and Jackson, 1987). Following this argument, the impact of the environmental debate in specific, and the industry’s self-perception that developed in general, have had an extensive effect on the development in the pulp and paper industry.

---

environmental values. This change in values can be seen as part of a wider social change, to which forestry eventually has to adapt.” (Hellström and Renuala, 1995:52)
An institutional belief in the Swedish P&P industry is that the economic and industrial policy within Sweden counteracts the development of a competitive industry.

6.6 Institutional beliefs and stability

The institutional beliefs, the core of the industrial wisdom, represent a factor that enhances evolutionary development. The processes within which institutional beliefs are reproduced - infrastructural, relational as well as belief structures - are functional to the industry experts as a worldview develops, a view that is strengthened with time.

Hence, the disclosure of institutional beliefs is a study of the core of stability in the industry (Lyles and Schwenk, 1992). Five parts of this core to which issues, labels and solutions are connected are here described.\(^{242}\) A core that is stable due to the fact that it is embedded in the infrastructural and relational structures. However, even if these beliefs are described as the core of stability, the strength or intensity of the institutional beliefs can vary. For instance, the institutional belief in a long term perspective was strengthened by the societal trend focusing on long-term planning that emerged in the 1960’s. In the late 1970’s, the belief was weakened as development made it difficult to apply long-term considerations.

6.7 Flexibility in industrial wisdoms

In chapter two, it was argued that institutional beliefs owned an inherent stability and the more flexible situational beliefs allowed a variety of interpretations of ongoing events and actions. The division between core and periphery is not without problems, as recognised by authors such as Abranavel (1983) and Meyer and Rowan (1977). In the continuous attempts to adjust to changing circumstances, situational beliefs tend to change. As these changes takes place, a

\(^{242}\) There may obviously be several other institutional beliefs in the industry. In the present study however five emerged from the analysis.
tension between the core - the institutional beliefs - and the situational beliefs emerge. Lindell et al (1994) propose that this tension is normally resolved as institutional beliefs work as a shell, allowing situational applications. Thus, in a broad sense, institutional beliefs indicate the direction of industry evolution, a direction that tolerates a number of different, sometimes rather conflicting usages.

Hence, the presumed view of stability and flexibility loose their earlier meaning. Institutional beliefs remain stable in the sense that they tend to exist over long periods of time. However on a day to day basis institutional beliefs can be applied in a number of rather different ways which provide them with an aura of flexibility. Situational beliefs work in a contradictory way. As they are communicated to a public through speeches, annual reports, articles and so on, they become set, rigid and resistant to change. However if the time period is extended, the inherent flexibility in situational beliefs appears. Consequently, situational beliefs expressed as certainties at one point in time can change, according to circumstances. Circumstances can, in this respect, be everything from new research findings, a recent survey, or perhaps, a new audience. Thus, the belief in a shortage of wood in the middle of the 1970's can be explained with reference to undeveloped research methods and optimistic predictions about demand development, at the beginning of the 1980's.

So far, the framework does not explicitly deal with the change of institutional beliefs. The next obvious step will thus be to explicitly focus on the changes in industrial wisdom. In chapter seven, the focus is placed on the industry level and the pattern of long term changes in industrial wisdom.
7. Industrial wisdom and change

Chapters four to six outlined a shared belief system, i.e. a wisdom specific for the P&P industry. In contrast to earlier studies, this descriptive part, with the help of the issue perspective, depicts the industrial wisdom in a longitudinal and processual mode. The present chapter further emphasises industrial wisdom in change, i.e. beyond the changes represented by the constant motion of situational beliefs.

7.1 The two processes of change

In chapter one, the review of research in the area of strategic change revealed that a dichotomy of evolutionary and revolutionary change dominates this field. This dichotomy has mainly developed in reference to single organisations, as for example illustrated by Johnson (1987). As concluded in chapter one, the studies of change in industry contexts are few, and the views concerning change in industrial wisdoms are contradictory.

The present analyses of industry level change indicates that the dichotomy of revolutionary and evolutionary change simplifies the development of the industry context, as the subtle interplay between different roles of the industrial wisdom are neglected. Following the analyses of the P&P industry, a view of the issue-related part of the industrial wisdom as continuously changing emerges. When new issues enter the debate the ongoing sensemaking process is nurtured. A process encapsulated in the concept of "industry debate", in which knowledge and experience from actions taken are negotiated and transformed into situational beliefs, shared within the industry. Beliefs
that sometimes are conveyed into actions. This represents continuous adjustment to shifts in reality (as experienced by industry experts). A shell, as a metaphor, was used in the previous chapter to illustrate the role played by institutional beliefs in directing and encouraging the development of issue related situational beliefs.

In this situational dimension, the industrial wisdom is in constant motion, new issues enter, are labelled and linked to solutions. These are nurtured by the experience retained in the minds of experts in the industry and provided by the ongoing debates. This process is both experimental, i.e. belief formation takes place as ongoing experience emerges, and fed by solutions travelling from context to context. The force towards modernity is, in this aspect, an influential source of inspiration (Huff, 1982; Czarniawska and Sévon, 1996). In this way we are able to depict continuous incremental changes that parallel the proposition of evolutionary change on the industry level suggested by Spender (1989).

As discussed in chapter two, the industrial wisdom both enables and constrains. Thus, the industrial wisdom, even though in constant motion, also offers stability. The concept of institutional beliefs was introduced in order to reach an understanding of beliefs that:

- are stable over time and thus frame the ongoing sensemaking processes.

Hence, these beliefs,
- influence the relevance of events and actions,
- affect the labelling of issues,
- influence the connections made between issues and solutions.

In chapter six, five such institutional beliefs were scrutinised and their relevance illustrated, when related to issues in the P&P industry. In the following chapter the change of such institutional beliefs will be the subject.

---

243 Compare the three ways of belief development referred to in section 2.1.
7.2 Changes in institutional beliefs

Following previous discussions, it is maintained that changes in institutional beliefs eventually take place. The difference between situational beliefs and institutional beliefs suggested here, is the pace and complexity involved in the change processes. When the issue-related parts of the industrial wisdom cope with a flow of actions and events, institutional beliefs offer the stable foundation on which situational beliefs are rooted. However from the ongoing analyses of the case, reported in chapter four, five and six, two periods stand out in which more distinct changes take place. The two periods, 1945-1965 and 1983-1990, are in no way defined years as such; they represent only rough approximations of periods of change.

7.2.1 1945-1965

As seen in the analyses, the first decade after the Second World War was a period in which two optional production concepts existed. The “winning” concept dominated the post-war period. This diffusion of one dominating production concept illustrates the process of unifying the pulp and paper industry. A process which, in symbolic terms, ended in 1968 as the pulp and paper trade associations (SPF and SCF) merged. However, we begin with a survey of the geographic localisation of the industry in about 1945.

Figure 7.1. The infrastructural localisation of the pulp and paper industry in 1937

a) mechanical pulp  b) chemical pulp  c) paper

---

244 The reason for not stating the exact time limits for the intensive change periods is simply that there are no such limits. Systemic pressure mounts within time and immediate impulses to events and actions can often be traced far back in time.

245 As few changes took place during the Second World War this map represent a good overview of conditions in 1945.
As shown, the large producers of market pulp were situated along the coast in the northern parts of Sweden. Companies such as Wifstavarf, MoDo and SCA were large market pulp producers and thus powerful members of the pulp trade association. On the other hand, we find companies as Holmen, STORA, Munksjö, Klippan etc. that concentrated on the production of paper. These companies were situated mainly in the southern parts of Sweden.

The background against which these two clusters of companies were formed varies. The northern cluster was founded by companies operating in the somewhat older sawmill industry and thus they often combined the production of sawn timber with the production of market pulp. In 1945, most of these companies had about a hundred years of experience in the pulp and paper business. Many companies in the south had even longer traditions and to a large extent combined the production of forest products with other lines of production. Three of the largest were STORA, Klippan and Holmen. STORA (at that time, Stora Kopparberg) is probably the world’s oldest limited company (founded in 1288); and until the end of the 1970’s the company had been heavily involved in the steel and mining industry. Holmen, founded in 1609, operated in the textile industry until the end of the 1960’s. Finally, Klippan, has a recorded history as a paper mill since 1573. Klippan was the first paper company in Sweden to install a

246 To some degree these companies pursued a production of market pulp. The point is, however, that they mainly produced pulp to supply their main operation - the production of paper products.
paper machine in 1830-32.247

Relating to the theoretical discussion on contexts in chapter two, it can be argued that the pulp and the paper industry in 1945 was divided into two contexts (two industries). The technology, customers, and geographical conditions were different, indicating a difference in the infrastructures. The existence of two trade associations indicates a difference in the relational structures. Furthermore, the background of the two contexts indicates a difference in the belief structures. Gunnar Sundblad, one of the most prominent figures in the development of the market pulp industry described the emerging fusion between the two contexts taking place in the post-war period in the following way - stressing the role of infrastructures to describe differences.

“The pulp industry has previously mainly been located in the provinces of Norrland, Värmland and Dalarna, whilst the papermaking industry has been centralised in the south of Sweden. The reason for this being that the papermaking industry produces more qualities and finds it more difficult to manufacture for high inventory levels, which is of course considerably easier when dealing with the mass production of pulp. In the north of Sweden there is always the risk that shipping will not be able to maintain regular traffic during the winter months, whereas the south does not usually have this problem. A trend can presently be seen in the north to change from pulp to the production of paper, such as newsprint, wrapping paper and cardboard as these grades are more uniform and allow long series of the same product and thus become less dependent on small scale deliveries and disruptions in sea transportation.”

(Sundblad G. 1961:273)

In the issue focusing on the increasing international competition (no. 7, in chapter five), this development is described. Solutions linked to this issue either followed a market pulp strategy, or a strategy in which

247 The first machine in Holmen was installed in 1836. In STORA it was not until 1896 that the first paper machines were installed. STORA, however, had been involved in sawn timber and a production of pulp for a long time. The machine with a capacity of 30,000 tons of newsprint that was installed in 1896 was almost ten times larger than the average machine at that time.
the integrated production of pulp and paper was pursued. The issue and the solutions utilised surface as vitally important for the development of the pulp and paper industry as the gradual formation of an united context emerges. It was thus a united industry that during the following decades reproduced the institutional belief in a single production concept.

Today, it is hard to imagine a scenario that would lead to two separate industries; one in the north, focused on market pulp and chemical products, and one in the south, continuing with its traditional focus on newsprint, kraftpaper and writing paper. However, if that development had taken place, the pulp and paper industry would not have been an obvious choice for this study. After the analyses of the board meeting minutes, it became clear that these two parts not could be seen as one context during the entire post-war period, although substantial overlapping already existed in 1945.

Reviewing issues during the period 1945-1958 with this in mind, some issues are referable to one of the two industries. Issues such as governmental regulations and increasing cost levels surfaced in both contexts as did, to some extent, both the increasing competition from North America and Finland and issues related to the supply of wood and the entrance of the Forest Owners' Association. However, the international trend towards trade liberalisation was mainly of concern to the paper producing companies, even if pulp producers, choosing between different development lines, paid a great deal of attention to the issue. In the market balance issue and in organisational forms for co-operation, issue content, labels and solutions proposed were similar. They emerged, however, in the two contexts at different times. Finally, two emerging issues dealing with the threat from plastics and the new entrants in the pulp market concerned mainly the paper producers and the pulp producers, respectively. There therefore was a substantial overlap in many issues, even if only a few important differences are detectable.

Figure 7.2. The two overlapping contexts

---

248 The Forest Owners Association's entrance took first place in the south of Sweden. A similar establishment in the industry also took place in the northern part of the country a few years later (Ncb).
As illustrated in the drawing, one reason for the overlap was that the two industries were closely interlinked in regard to technology and raw material supply chains. Some paper companies were customers of the market pulp companies. Other customers of the market pulp producers were to some extent competing with the producers of paper. A further explanation for these overlaps was that the two contexts had faced the same restrictions during the war and learnt to co-operate (co-operation was an institutional belief in both industries). Finally, organisations such as the pulp and paper engineering club (SPCI) and SISU (the Joint Committee of the Swedish Forest Industries) facilitated information flow between the two contexts.

Even if Gunnar Sundblad, in 1961, reported a “trend toward integration in the north” the fusion between the two contexts had probably already commenced in the early 1950's when SCA, the

---

249 Only a few companies are chosen to represent the two contexts. A large number of minor companies are excluded. The placement in the figure follows the estimated share of market pulp compared to the total pulp and paper production in each company.
largest market pulp producer, decided to integrate forward and become an integrated pulp and paper company. SCA's decision to integrate their production of pulp with a production of paper bridged the two contexts. The decision was not easy to take as substantial resistance came from within the company. Gaunitz (1979) reports that SCA's decision was delayed several times as the sales organisation forecasted a future in which the company would be competing with its own customers. That this debate not was unique for SCA was reported in an industry survey from 1971.250

"Many of these developments met considerable resistance, both actual and psychological. For a long time there had been an unwritten rule that the manufacturer should never compete with his customers. This tradition was first breached during the 1950s when the traditional pulp producers began to manufacture paper or cardboard." (Svensk Skogsindustri i omvandling, 1971:400)

It was not until the early 1960's that a number of companies took the decision to integrate forward but the formation of one industry context had been in progress for a long time as most of the remaining market pulp actors were small and of little importance to the industry debate.251 When the merger between the two trade associations took place in 1967/68, a number of industry experts were already board members in both associations. In justifying the merger, it was concluded that the industry evolution would continue to benefit completely integrated mills (i.e. companies covering the entire chain from raw material (wood) to consumer products) (SCF/SPF, Committee report, 1967 October 9). This was thus the final signal for the fusion between the two contexts and, as reported by Bjuggren (1985), the forward integration (i.e. between pulp and paper) continued as forecasted, from 35% in 1960 to 62% in 1982.252

250 See also the discussion about the negotiated environment in chapter five.
251 Most of the independent market pulp producers as well as the minor independent producers of specialised paper products in the south of Sweden shut down or merged with more successful counterparts. MoDo and Iggesund represent a few companies that were able to switch between development lines.
252 Integration is calculated as integrated pulp as a percentage of total pulp produced in the country. See Bjuggren, (1985:104ff) for elaborations on this theme.
In retrospect, this large change in industry contexts was most prominent in the construction of two newsprint machines in Ortviken 1956/58 (SCA) and the construction of four kraftliner and packaging machines during the period 1961-1963 (Korsnäs, Munksund (ASSI), Lövholmen (SCA) and Wifstavarf). These investments represented a large step forward in the integration of the production of pulp and paper in the north of Sweden. The investments, however, also entailed the acknowledgement of the importance of the North American industry as the emphasis was placed on newsprint and packing paper produced from large-scale machines, i.e. the trend observed in the US.

As described this change of contexts deeply influenced the concept of production. The view of North America as a role model for the Swedish P&P industry was also confirmed in both arguments and actions taken. The institutional beliefs in co-operation, the view of the authorities and the long term perspective were all strengthened by this development. As described in chapter six, these institutional beliefs, in many aspects, were present in both contexts before the fusion took place. It can therefore be theorised that several institutional beliefs were unaffected by the changing contexts, even though the change was of vital importance for the industry identity.

A way of describing the importance of the change that took place in the 1950’s, while still stressing the incremental nature of this change, is to introduce the concept of “deep change”. A deep change stresses that some institutional parts of the industrial wisdom are in a state of change but even so, the change is only partial, as several other institutional parts of the industrial wisdom remain stable. Furthermore a deep change can be drastic to the actors involved as they realise the implications, but in nature it is evolvental as the full consequences of the change slowly emerge during a longer period of time. In this case, the nature of the changes are first detectable after a period of 7-20 years.

7.2.2 1965-1980

As stated in the introduction, the characterisation of long term periods as evolutionary is perhaps risky as it tends to either simplify or disregard the important processes that mould the next periods of deep change. The reason for classifying fifteen years of development as
evolutionary by no means implies that this period was characterised by the absence of change. On the contrary, this was a period of strategic action in many companies. Focusing on institutional beliefs on the industry level, the changes were few. The five institutional beliefs were strengthened during the period 1965-1980, as many strategic changes undertaken by companies reinforced these institutional beliefs. Issues such as the shortage of wood in the middle of the 1970s, were met by increased co-operation. The beliefs in integration, large-scale production and increase in value added were applied as ways to meet increasing North American activities in Europe and the long term supply to Western European markets. Following Miles R. H. (1982) terminology, we can speak about a period of "domain defense". Or as illustrated repeatedly in chapter six - a circular process in which beliefs and actions reinforce each other in structural dimensions.

Here, the term domain defense is used, as issues in this period often focused on subjects such as; substitute products (i.e. plastics), new pulp producing countries; and actions taken by North American companies. In all these issues, domain defense took place as the existing domain became challenged by real or potential invaders. The debate focused on how to meet these challenges by using traditional solutions (cf Jaakko Pöyry, 1977).

At some point in time, suggestions for more fundamental changes appeared, i.e. the TUA (1969) and BCG reports (1978). Based on the threat from plastics as a growing substitute, (in the TUA report), and the new pulp producing countries (in the BCG report), suggestions for unrelated diversification were discussed as a possible solution. That is, an unrelated diversification that could eventually lead to a deep change in some of the institutional beliefs in the industry. As a result, diversification entered the list of solutions advocated by some industry experts. However, the financial problems of the industry at the end of the 1970s made it impossible to mobilise a major response in the

---

253 Miles refers to the behaviour of individual companies. Domain defense focuses on when companies join forces. Domain defense mainly takes place when the survival of several of the companies is threatened. Here, the term domain defense mainly covers joint actions but also includes the large number of more individual actions that aimed to defend the status quo against what was perceived as threatening changes for the future of the industry.
quest for diversification. Proposals from outsiders, such as the BCG group, were moreover often neglected or treated as unrealistic by industry experts (cf Wergens, 1979). Domain defense continued until the 1980's when new opportunities appeared.

7.2.3 1980-1990

The next deep change in the industrial wisdom appeared in the 1980’s. The change can be detected in several of the issues. The issue concerning “The acute shortage of wood“ had been reformulated to “How to increase fellings“ at the end of the 1970's and can be used as a point of departure. The change partly appeared as the belief in a physical shortage of wood diminished and the problem became reformulated, focusing instead on how to encourage land owners to increase fellings. An underlying trend was the increase in the use of recycled paper which reduced the demand for wood. At the end of the 1970’s recycled paper was still seen as only a complementary source of raw material. In the 1980’s the situation gradually changed and suddenly recycled paper became a vital raw material in itself. Reflecting on the development in the 1980's, Bo Berggren Chairman of the Board for STORA and former CEO concluded that,

“Old concepts and patterns of doing business have been turned upside down as completely new competitive factors have emerged. The forest industry has, apart from these overall tendencies, seen how the raw material supply structure has undergone fundamental changes. The classical structure was the main supply coming from the northern coniferous forest belt with a limited percentage of recycled paper for the manufacture of low quality paper grades. This has changed. The importance of fast maturing fibres from temperate zones, together with the use of fillers and pigments has increased, but in particular recycled fibre percentages, which will also be increasingly used in different paper qualities.” (Berggren, 1992:1-2)

The consequences of the downgrading of virgin fibres and thus the upgrading of recycled paper can not be underestimated. The increased use of recycled paper changed the traditional structure of the European industry. An awareness that forests in the Nordic countries perhaps no
longer would be the dominating supply of fibres needed in Western Europe was spreading (cf IVA, 1993:2 and 4). Instead, recycled paper combined with the import of fibres from other regions could be used to fill a substantial part of the needs of Western Europe. Sverker Martin-Löf captured the essence of this change in a statement from 1992,

“This mills usually had to be built in or near the forests. Today they must be sited in the large European urban areas which is where the market is and where paper for recycling comes from.” (Martin-Löf, 1992:16)

The limit for this development was still to be identified in the 1980’s, but the growing environmentalist movement encouraged a continuous increase in the consumption of recycled paper.

“The paper industry had previously tried to conceal its usage of waste paper - but with the increase in environmental awareness this has now become a marketing advantage.” (Sundblad J. in IVA 1993:54)

At the same time, other traditional issues, such as the international trend towards trade liberalisation were also reformulated. At the beginning of the 1980’s, the deregulation of trade had been taking place for a decade. However, the decision to implement the concept of a single market in the EEC countries created a new threat. Considering the great efforts which had been made in the 1970’s to reduce trade barriers, the reaction from industry experts to this threat of new barriers was understandably strong (cf section 4.6).

So changes in several issues contributed to the actions taken in the industry during the 1980’s. Following the old production concept, the trade association explained the extensive wave of investments and acquisitions abroad as a continuous forward integration. Other experts explained it in a different way. For them, the increasing uncertainty of the energy issue, of new developments in trade liberalisation and the increasing role of recycled paper were of equal importance. Obviously, all of these issues together stretched the meanings of institutional beliefs. As events or actions are radical enough, or as minor events and actions build a systemic pressure, institutional beliefs are no longer in a position to offer labels and solutions that are trustworthy,
i.e., in the 1980's, some institutional beliefs gradually lost their context.

The reorientation of institutional beliefs is most obviously reflected in the institutional belief concerning co-operation. As indicated in the issue about the future organisation of co-operation, the level of organised co-operation within the industry was questioned in 1987 and onwards. First, the joint research organisation (STFI), and later the trade association, were questioned. The motive was obvious as the production concept - large-scale production and integration forward - gradually reduced the number of actors in the industry. At the same time, these actors became more international. The growing difference in size between actors, also indicated that the future importance of the Swedish context diminished.

The interplay between the institutional belief in large-scale production and the continuous forward integration together with developments that took place in a number of issues in the 1970's and 1980's, was the basis from which the institutional belief in co-operation was put into question. The questioning of this institutional belief led to a reorientation and downsizing of institutions fostering co-operation - a process that led to an independent industry expert writing an article in which he argued that,

“The Swedish forest industry must develop forms of co-operation suitable for the global market we are now entering. A good point of departure should be our mutual respect for each other's skills and experience and the awareness that we need each other in order to survive.” (Croon, 1987:50)

Efforts to establish new organisational arrangements for co-operation

254 This should not be seen as if all forms of co-operation suddenly disappeared and all companies became involved in an intense competition. Rather some forms still survived and were seen as necessary. The point is rather that institutions built on the belief in co-operation, was suddenly questioned. Not so many years ago an expansion of these co-operative arrangements was natural and regarded as a successful way of coping with a wide array of issues. In a survey over the future need for co-operative research from 1971 it is for instance concluded that “co-operation and coordination is desired”. It was further stated that the trend towards larger companies not should lead to isolation in research (Svensk Papperstidning 1971:4 page 99ff).
on the European level can be seen as an expression of this new form for co-operation.

However, it was not only the institutional belief in co-operation that was put into question during this period. The need for a long term perspective was downgraded as companies operated in several countries which, together with broader product ranges, made it possible for companies to cope with changes more successfully. The dependence on the Swedish currency, for example, decreased. Arguments such as these were often used to justify international acquisitions and mergers (see also section 8.6). Furthermore one of the more important reasons for applying a long term perspective was the fear of a future shortage of wood. This fear gradually disappeared as supply increased. The use of recycled paper grew, and increases in production capacity mainly took place outside Sweden. Thus the “new” companies evolving from the transformation process were able to cope with the uncertainty in investments and wood supply in a more flexible way, which reduced the importance of a long term perspective.

A further change in institutional beliefs was that North America (mainly the US) was no longer the obvious point of reference in all areas. The gap, which was so obvious after the Second World War, now diminished. Consequently, as some industry experts suggested, another suitable point of reference could perhaps be found in South East Asia.

Applying the analysis of contexts in three structural dimensions suggested in chapter two, extensive changes in the infrastructural dimension took place during the 1980’s. This is confirmed by authors such as Hellgren et al (1993); Clark (1990) and Romme (1994) as well as many investigations, IVA, (1993:2) and IVA, (1993:4) and Ds (1991:35). The changes studied were mainly those of the supply of raw material, geographic localisation of production and the growth in size. Below, the growth of the three dominating groups in Sweden is illustrated. During the period 1970-1980, the annual turnover of the three groups increased by 265%. During the period 1980-1990, the corresponding figure was 664%. Furthermore, in the latter period, the number of total employees increased by 238%, at the same time as the number of employees outside Sweden increased from 25% to 64%.

255 The extensive increase in the 1980’s is partly due to one large acquisition in
Table 7.1. The development of turnover and number of employees 1970-1990.

<table>
<thead>
<tr>
<th>Company/Year</th>
<th>1970 turnover (billion SEK)</th>
<th>1970 employed (annual average)</th>
<th>1980 turnover (billion SEK)</th>
<th>1980 employed (annual average)</th>
<th>1990 turnover (billion SEK)</th>
<th>1990 employed (annual average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STORA</td>
<td>1.9</td>
<td>13,239</td>
<td>4.1</td>
<td>9,931</td>
<td>62</td>
<td>69,691</td>
</tr>
<tr>
<td>SCA</td>
<td>1.4</td>
<td>10,564</td>
<td>6.7</td>
<td>15,935</td>
<td>31.1</td>
<td>30,139</td>
</tr>
<tr>
<td>MoDo</td>
<td>0.7</td>
<td>8,496</td>
<td>3.8</td>
<td>7,585</td>
<td>18.4</td>
<td>12,961</td>
</tr>
<tr>
<td>Total</td>
<td>4.0</td>
<td>32,299</td>
<td>14.6</td>
<td>33,451</td>
<td>111.5</td>
<td>113,061</td>
</tr>
</tbody>
</table>


In respect to the relational dimension, the downsizing of joint research and trade associations indicates a change in relationships between Swedish companies. The increase in interactions on the European level as well as the growing importance of strategic alliances outside Europe also shows the changes taking place. Many interviews confirm that a more competitive climate evolved in the Swedish P&P industry. Moreover, the urge for more marketing-oriented approaches demanded by, for example, Peter Wallenberg at the end of the 1970’s (see section 6.4) finally occurred when companies became more internationally oriented. The removal of SCA’s packaging business headquarters to Brussels and STORA’s relocation of their printing paper headquarters to Germany, indicated that the P&P companies were leaving the forests of Sweden and approaching their end users.

1990, namely STORA-Feldmuhle. An acquisition that included large parts that were divested during the following years. However if figures for 1993 are compared with 1990, the pattern is still apparent. The small decrease in numbers is partly a result of extensive rationalisation programmes, due to the recession in the early 1990’s. The total turnover for the three companies had decreased to SEK 101 billion in 1993 and the number of employees decreased to 71,716. The ratio of employees outside Sweden was 54% i.e., the figures show that a radical change had taken place during the 1980’s.
Ds 1991:35 speculated on the effects on the belief structures of these changes.

“When business area head-offices are relocated to other countries, there is always the risk that future strategies will become increasingly formed from a non-Swedish perspective. If this happened within the forest industries, it could lead to fundamental changes.” (Ds 1991:35 page 31)

In conclusion, the deep changes in the shared belief structures during the 1980's can be seen as the result of the changing view of cooperation, the view concerning a long term perspective, and the reduced role of the North American industries.

7.3 The intensity of change

In summary the evolution of the P&P industry can be divided into three periods. The first period describes the spread of a partly new production concept throughout the entire industry. The emerging consensus concerning this production concept illustrates the process in which a consensus about the identity of the industry crystallised. 1965-1980 was a period of reinforcement and strengthening of institutional beliefs. Hence, a period in which a homogenisation of infra-, relational- and belief structures took place. During the last period, the 1980’s, a new deep change, apparently of the greatest importance for the future of the industry took place.256 This second period of change appeared in many issues and in several of the institutional beliefs.

So far changes in industrial wisdom have been depicted as taking place on two analytical levels. The first, continuous change, seen as an ongoing flow of events and actions, are made sense of in issues. These

256 The word “apparently” is included as the magnitude of this change can only be evaluated in retrospect, and will perhaps be reevaluated later.
ongoing changes can be of great importance for the individual company, but they seldom challenge institutional beliefs. On the contrary, institutional beliefs reduce uncertainty and provide experts with a lifeline which consists of the constructed logical development through which the present and the forecasted future are connected to the evolution of the industry. A contextual logic evolves with the help of institutional beliefs.

However, as illustrated in this chapter, institutional beliefs are not eternal. They are also questioned and transformed from time to time. The process by which this transformation process takes place is complicated. From the two deep changes discussed above, the following tentative conclusions can be drawn. The use of the concept of deep change focused on the rather slow but fundamental nature of change in institutional beliefs. The deep changes taking place in the industry context are evolutionary and rather slow when compared to the radical changes that can take place in company contexts. In a company, an immediate threat to survival, and/or the replacement of individuals (or entire management teams) are often considered as a prerequisite for revolutionary change in the shared belief system (Starbuck and Hedberg, 1977; Johnson, 1987; Grinyer and Mackiernan, 1992). These revolutionary changes in shared belief systems are, according to Gagliardi (1986), perhaps best described as the “birth of a new company”.

“It is no accident that large-scale cultural transformations have been associated with the death of the ‘old’ man and the resurrection or birth of the ‘new’ man. In such cases, can we say that the old firm died and that a new firm which has little in common with the first was born?” (Gagliardi, 1986:130)

In the P&P industry this kind of revolutionary change does not occur. The changes in the 1980's took place without any major wave of replacements in top management. On the contrary, the industry was going through a prosperous time in which top management teams were mostly seen as highly successful. The same pattern can be found in the 1950's. The industry's profitability increased due to the post-war boom and the Korea boom. Increases in profitability were a prerequisite for the large investments undertaken in the latter part of the 1950's and
earlier part of the 1960's.\textsuperscript{257} A conclusion supported by Forsgren and Kinch (1970), who argue that changes which took place in the P&P industry were caused by the build up of a systemic pressure during a long period of time.

Hence, it can be argued that the major changes on both occasions were deep in nature but still linked to stable parts of the industrial wisdom. Some institutional beliefs were in motion while others remained fixed. This view of change in institutional beliefs is supported by Bartunek (1984). He suggests that new and old beliefs interact and the result is a new synthesis. That is, some institutional beliefs change, but those remaining constant offer stability and thus allow the contextual logic to survive.

Furthermore, the periods during which deep changes took place are extensive. This can be understood by focusing on three types of contextual structures; The infra-, relational- and belief structures, which are all in motion when a deep change takes place. As change processes affect these structural dimensions in different ways, the total time period for a deep change is altogether often long.

The change in the 1980's, for example, included an increase of 300\% in the total number of employees in the three largest companies, at the same time that the number of those employed outside Sweden more than doubled. These changes in the infrastructural dimension are not achieved in just a few years. Moreover, any change in a relational pattern that has been in use since the beginning of the 20th century, does not occur overnight. In fact, industry experts expressed the need for increased market orientation - that is, more developed relations with the end users - as early as the beginning of the 1950's. The search for the development of relational structures continued since that time. The major changes, due to the merger and acquisition wave of the 1980's, was only the last step taken. Finally, the time it took to come to the insight that paper produced from inferior raw material, i.e. waste paper (or recycled paper), was a competitive factor on the market is easy to understand as the industry for hundreds of years had exerted great efforts to increase the technical quality of its products (cf

\textsuperscript{257} As shown in the case, the Swedish anti-cyclical economic policy delayed investments. The major profits were made during the early 1950's but the major investments that increased the integration of pulp and paper production were mainly carried out during the period 1957-1963 (cf IVA, 1979:92 ff).
Sjöberg, 1996).

“This (the reduction of technical quality) can be seen as one of the main reasons that demands for increased usage of recycled fibre have been met with scepticism by many representatives of the forest industry. It means that the customer, in some cases, will be offered a product of lower quality than otherwise. Those having spent their whole working lives in the development of pulp based paper qualities feel that this is wrong. Despite this, there will be an inexorable increase in the usage of recycled fibre.“ (Ds 1991:67)

7.4 Freedom of action in the Swedish pulp and paper industry

Focusing on infrastructures, Porter (1980) reflects on industry change. He gives strong arguments for a gradual decrease in industry growth and suggests that the learning curve among both buyers and sellers, the gradual diffusion of knowledge and the decrease of uncertainty, are strong arguments for industries to follow at least two stages in a life cycle, the emerging and the maturity stage. Apart from this evolution, he emphasises that the nature of change in industries is difficult to relate to any specific development stage. That is, there is nothing to indicate that changes per se should be less profound in the maturity stage compared to the emerging stage - even if the

258 In chapter two, resources and capability were concepts used in the discussion. In the ongoing analysis the concept of "freedom of action" emerged as a concept that is useful in describing to what degree the industry, at any given time, is open to radical initiatives (for a similar concept (handlingsutrymme), see Klint, 1985). The freedom of action is applied on the industry level. The given freedom of action describes the general condition in the industry. In the next chapter (chapter eight) resources and the capability to initiate action are discussed in reference to the actions taken by individual companies.

259 Infrastructures are here described as the number of companies, product maturity, sales growth, number of entries and exits in the industry, level of innovation, position on the learning curve and opportunities available for advantages of scale.
establishment of homogeneity in structural dimensions could indicate this.

Easton et al (1993), focusing on the relational structures in industries, elaborates on the argument concerning increasing inertia throughout development stages. Easton et al characterises industries as going through four stages; the community stage, the informal network, the formal network and the club. These stages are characterised by factors such as the distinctive identity, boundary identification, awareness of competitors, level of interaction and communication among competitors. The degree of inertia increases as the different stages are passed, and ultimately the industry must either be transformed into a new industry or disappear. Easton et al argue that the relational dimension tends to develop according to the pattern described above. They also, however, emphasise that it is too early to make theoretically valid statements about the birth, death and/or transformation of industries.

The present study confirms these findings to some extent. The P&P industry is characterised by very high fixed costs in process technology. This is also reflected in the step-wise investments of the industry. The industry is further characterised by mature products with a rather stable growth rate and a technology that is widespread and well known. The relationships within the industry are often maintained over decades and competitors, as well as large customers, are well acquainted with each other. Thus the P&P industry shows all features of a mature industry, considering the infra- and relational structures.

However, as stressed above, maturity does not per se lead to slow and incremental changes in industrial wisdom (i.e., the shared belief structures). Studying the changes taking place in the Swedish textile industry in the 1970’s, Hedberg and Ericsson (1979) elaborate on this. They suggest that there are two sorts of inertia. Inertia either appears as a difficulty in appreciating the implications of events and actions (insiktströghet), or can appear as the need for time and financial resources to change infrastructures (maskintröghet). To these two forms of inertia can be added a third, i.e. inertia appearing as a consequence of relational ties (relationströghet), following the three dimensions of structures used here. Inertia in relational structures

260 A similar reasoning is used by Stein, 1993. Stein conceptualises “the freedom of interpretation” and “the freedom of physical action” (Stein, 1993:86).
stresses the obstacles caused by the breakdown of ongoing relationships. These phenomena have been extensively studied from the industrial network approach (cf Hammarkvist et al, 1982; Nilsson, 1990; Axelsson and Easton, 1992).

This conceptualisation offers a way of understanding change in the P&P industry. According to Porter and the empirical case, the industry can be classified as suffering from high inertia in its infrastructural structure. A change in the structures of production involves huge investments which can often take from 10-15 years until they are fully implemented. Following the description of the relational structures, it is no overstatement to argue that the P&P industry is characterised by high inertia in the relational dimension. The ties are numerous between both individuals (i.e. industry experts) and companies within the industry. The established career paths, with the Swedish Forest Product Research Institute (STFI) as one important starting point, contribute to this.

Hedberg and Ericsson (1979) make a point in observing that inertia in the structural dimensions do not automatically parallel each other. Turning to the studies of individuals and organisations, this assumption is frequently used. The idea of thinking and thereafter initiating behaviour in order to change the infrastructural or relational structures is often applied in psychology and organisational theory. Some authors also argue that it can take some time before changes in relational structures and infrastructures have an effect on belief structures (cf Weick, 1979; Starbuck and Hedberg, 1977; Johnson, 1987 etc.).

How, then, can the two deep changes in the P&P industry be explained and connected to the ability to take action within this framework? The tentative answer is that inertia, as Porter (1980) argues, is not determined in any absolute sense. During any period of time, inertia can, in different dimensions, be more or less intense (Tichy, 1980). In the two periods of deep change focused in this study, inertia in the infrastructural dimension was temporarily low as companies enjoyed periods of prosperity. High profitability allowed high cost projects, as the degree of self financing increased and the prospect of a leverage effect could be envisioned. To this must be added that long term future prosperity was forecasted in both periods.

At the beginning of the 1950's the pulp companies were extremely profitable, which lessened any uncertainty in undertaking substantial
changes in the production structure. The forecasts made at that time repeatedly underestimated the growth in demand that eventually took place. This pattern of underestimation fostered a strong belief in future prosperity as demand increased. But it must not be forgotten that, at the same time, pressure was mounting. The awareness of the need to respond to the increase in competition from US and Finnish companies spread during the 1950's.

The 1980's were similar. Increasing profitability, as well as forecasted future profits motivated the wave of domestic as well as international acquisitions. Following the experience gained from the acquisitions made in Sweden, these international investments were seen as low priced. “The whip”, as Petersson C. (1996) describes it, being all the lost opportunities in the 1970's. Due to the prolonged recession during this decade, structural changes planned by many companies were postponed. The lost opportunities in the 1970's were, however, also combined with the "unfriendly political climate" in Sweden during the 1980's, as described at length in chapter six.

So to sum up, the key phrase used in the title of this section was “Freedom of action”. After analysing the Swedish P&P industry, it can be concluded that the industry in general is characterised by a high level of inertia which constrains its freedom of action. However, inertia is no lasting quality. The two deep changes that took place in the P&P industry were both occasioned by circumstances that temporarily lowered the level of inertia in the infrastructural dimension and thus extended the freedom of action - an extended freedom that made radical actions both possible and attractive.

As a result of this extended freedom of action, the industrial wisdom eventually experienced deep changes. As initiatives were taken and actions implemented, the structural dimensions were put into motion. As a result, institutional beliefs were questioned and gradually reformed - a renewed industry was born.

7.5 The three dimensional structures and the freedom of action

The use of a perspective through which industry evolution is described
in three structural dimensions has been helpful in this analysis of the Swedish P&P industry. In the following, this reasoning will be somewhat extended and, in a speculative way, applied to industrial development in general.

Earlier studies such as Levenhagen et al, 1993; Powell, 1993; Kimberly, 1980; Pennings, 1980 and Astely and Fombrun, 1987 have shown that industries in their emerging phases experience a lower level of inertia in structural dimensions. Homogeneity and thus inertia is gradually built up in all three structural dimensions.

Focusing on a mature industry, characterised by a high level of homogeneity in all three structural dimensions three types of industry evolution is interesting. One extreme type of industry is characterised by high inertia in all three structural dimensions and thus often referred to as fixed or conservative. In this type of industry, stability is depicted as stable flows of structural reproduction. Change is rare and often surprising to the actors within the industry.

At the other extreme, we find an industry characterised by low inertia in all three structural dimensions. Here there is low consensus regarding borders and company clusters that together comprise an industry, as the companies hardly admit that they belong to an industry at all. A problem with this type of industry is that it is often only detectable in retrospect, i.e. when industry homogenisation has been further developed.

The third type is the most interesting. In this type, inertia is low in one or two structural dimensions and at the same time high in one or two. Let us discuss a somewhat provocative example,261 to illustrate this type. The “industry” of higher education in Sweden (Academia) is characterised by low infrastructural inertia. The machines used are few. The localities in most cases have alternative uses. The geographic locality is not determined by the access to natural resources. The customer group is large and mobile. However, in the shared belief structure, inertia is higher. In academia freedom of research, the professional hierarchy, titles and several more artefacts represent shared beliefs rooted in a long tradition. These beliefs are not easily changed, even if, in fact, attempts are made now and then. Furthermore the relational structures are characterised by high inertia.

261 This description is obviously somewhat exaggerated but this is only for illustrational purposes.
Lecturers, once established, tend to stay in academia. Thus this “industry” has high inertia in belief structures and relational structures, while lower inertia exists within the infrastructural dimension. The building of new academic institutions in Jönköping, Norrköping and Malmö at this time, is an expression of the low inertia level in the infrastructural dimension. The thousand dollar question is, however, if these infrastructural changes also affect relational structures and shared belief structures in academia? Will the changes in infrastructures become absorbed by the establishment or contribute to a genuine renewal of academia? Well, that is a question that remains to be seen.

Depending on the distribution of inertia between the three structural dimensions processes of change will take different routes. In the P&P industry, change slowly influenced the entire system. However, if inertia is high in the belief structures, but low in the infrastructural dimension, as in academia, experimentation with new infrastructural set-ups will not be so expensive and thus can be allowed to take place on a fairly regular basis.

The following chapter

In this chapter, the focus has been on the industry level. The change in industrial wisdom has been examined. From this analysis, the concept of deep change on the industry level emerges. A concept that emphasises the long term, and rather incremental type of changes taking place in the P&P industry. This evolution is best described with the help of three structural dimensions. In the following chapter, the focus will be on those companies that comprise the industry and thus produce and reproduce industrial wisdom.
8. Industrial wisdom and strategy formation

The theme of this chapter is the interaction between the industrial wisdom and individual companies within the industry. Six vignettes are used to illustrate this interaction. All vignettes focus an episode of strategy formation. The actions taken have all been described as “strategic“ by top executives262 in the companies. However, generally speaking, the choice of vignettes in no way represents the overall strategic changes taking place in the industry. On the contrary, they are chosen to illustrate certain aspects of the interaction between industrial wisdom and the company context.

As described in chapter two, industrial wisdom both enables and constrains change. Change occurs when some powerful actor is in command of resources and has the ability to deploy these resources to create action capability. Therefore, the strategic actions described in the following will be portrayed as changes in patterns of actions (Mintzberg, 1991). In examining the interaction between such changes in a specific company and industrial wisdom, the prime subject of interest is how these changes in action were given justification and gained acceptance. Were actions taken by top management related to industrial wisdom? If interaction took place, in what form; and how did it affect the future content of the industrial wisdom? Furthermore, could the implementation of the strategic change be connected in any way to the phases of incremental and deep change discussed in chapters five and seven?

---

262 Top executives have either described them as "strategic" in interviews, or expressed this opinion in articles, speeches etc.
These vignettes do not, nor are they intended to represent an "industry average". Some of them were written early in the process, as they seemed to be of empirical interest (i.e. fascinating stories!), while some were written because they could give a deeper understanding of the development at that particular time. Finally, some were added towards the end of the writing process, as they covered some missing aspects. The necessity to review the whole period 1945-1990 was also of importance in the final choice of vignettes.

8.1 Three approaches to the industrial wisdom

The term "approach" is, for several reasons, used in the following. The focus is placed on how situational and institutional beliefs (i.e. industrial wisdom) interact with company specific strategy formation processes. The expression “interact with” is included because a choice exists. As discussed in chapter two, the base of industrial wisdom is its enabling and constraining qualities. The role these dual aspects play in any given situation are partly dependent on the company's resources and capabilities. In some companies, the organisational specifics allow, or force, the organisation to act in contradiction of industrial wisdom. This is, for instance, often implied when an organisation is said to possess a “strong organisational culture“, i.e. it is assumed that their unique organisational values override industry wide beliefs.263 In other cases, the organisation may not be in control of the resources required to implement solutions offered by the industrial wisdom. This interaction between the organisational context and the industry wide context will be further explored in the following.

The use of the term ‘approach’ also emphasises the temporary, i.e.

263 Alvesson (1993:27ff) stresses that "strong cultures" often are equated with "good" or "valuable" cultures. This is not the case in this study. Moreover, Alvesson stresses that "good" or "valuable" implies a functional perspective in which the core discussed only represents the management ideology and not a culture. The position taken here is that a strong culture implies that the management ideology or beliefs are widespread in the organisation and institutionalised in infra-, relational as well as in belief structures. They are thus, difficult to oppose. Due to the empirical limitations of this study one can only theorise regarding the degree of acceptance among those outside the top management.
no conclusions are drawn regarding the validity of this approach in the long term. When facing new challenges or resource availability, the companies examined may react and relate in different ways to the industrial wisdom. It is not within the scope of the present study to perform a longitudinal comparison of the interaction between companies and the industrial wisdom. With this limitation in mind, the approaches utilised in this study offer some speculative ideas that can be compared with other typologies and theories of company development. In the following Miles R. E. and Snow (1978) typology of strategic adaptation is used as a starting point.

Miles R. E. and Snow (M&S in the following) postulate that during any given period of time companies tend to follow one of four pattern of actions. The “defender” perceiving an environment dominated by stability, designs an organisational structure that favours efficiency. The “prospector”, on the other hand, enacts conditions where open learning from a dynamic environment is rewarded. Thus the prospector tends to initiate new ideas and prosper from innovations. The “analyser” tends to alternate between the two extremes represented by the defender and the prospector. This type is therefore not as efficient as the defender nor as innovative as the prospector. However, the analyser prospers from steady growth and the imitation of the best from both the prospector and the defender. The last category, the “reactor“, represents the failure. A type that is unable to combine structural properties successfully.

This typology provides an idea of how to internalise the outer context (Pettigrew, 1977); as all three successful types develop separate ways of constructing the environment. Identifying three dominating management problems in a company (the entrepreneurial, engineering and administrative), M&S argue that in this process the administrative problem include both a lagging and a leading aspect.

"As a lagging variable, the administrative system must rationalize, through the development of appropriate structures and processes, the strategic decisions made at previous points in the adjustment cycle. As a leading variable, on the other hand, the administrative system will facilitate or restrict the organization’s future capacity to adapt depending on the extent to which management articulates and reinforces the paths along which such activity can proceed.” (Miles R.
Elaborating on these two aspects, M&S prefer to focus on the aspects of the administrative system that aims at rationalising change. Focusing on how companies approach the industrial wisdom in periods of strategic change, the focus is somewhat different and the "leading variable" emerges as of specific interest. The question is, in which ways the "facilitating or restricting" capacities for adaptation, hinted at in the quote above, are employed when strategic changes are articulated, rationalised and thus related to the industrial wisdom?

Following the M&S framework, defenders focus on the product domain, rarely seeking new opportunities outside their own niche, and when exogenous actions and events occur, which weakens the logic upon which their business are constructed, they try to adjust and adapt to those changes (Daft and Weick, 1984). As their basic strategy is to avoid deep changes, these are rare and can perhaps be described as, either of major magnitude or paradigmatic (Johnson, 1987). When change does eventually take place, it can be assumed that the defender imitates the behaviour of the analyser. M&S indicate that the defender, when undertaking change, prefers to imitate and follow the mainstream development. They rarely develop prospector characteristics (ibid. 1978:47). Thus, it can be proposed that the defender follows an adaptive approach to strategic change and hardly ever questions or opposes the mainstream opinions of the industry, i.e., the defender adapts to issues, labels and solutions represented by industrial wisdom. The strategic changes undertaken by the adapter are in line with the overall development suggested by industry experts. When successful, the actions undertaken by the defender are regarded as a role model for other companies, as the prescribed solutions of industrial wisdom are empirically tested and found feasible.

Focusing on strategy formation, the discussion concerning the defender can be used to develop the first approach to industrial wisdom. The adaptive approach emphasises the following of dominating ideas, expressed in issues, labelling and solutions. A strategic change undertaken can, thus, be revolutionary in the focal company but easily justified as it seems to be in line with the overall industry opinions (Baden-Fuller, 1995).

It must, however, be stressed that the term ‘adaptive’ does not mean that the company directly transforms issues, labels and solutions into
action. Strategy formation comprises a complicated process in which specific organisational conditions, unpredictable factors etc., have an importance on the outcome of the action. This particular relationship between the approach taken and the action outcome will be further discussed at the end of the chapter.

The analyser is both involved in actively shaping the industry at the same time as adapting the prevailing industry structure. He neither ignores the institutional and situational beliefs of the industrial wisdom or fully follows the solutions pointed out. The analyser stands between the adaptive and the challenging approach (see below). The use of the stretching approach is, thus, to challenge some issues, labels and solutions in the debate but, basically justify actions consistent with industrial wisdom. Companies following the stretching approach emphasise efficiency and innovative qualities - that is, they “manipulate within the rules of the game” (Daft and Weick, 1984). In this, they extend the boundaries of mainstream issues, labels and solutions.

The third type identified by M&S, the prospector, concentrates more on an active search for new opportunities. Actions taken by the prospector often create situations in which the majority of other companies must follow their example. This type is characterised by those companies which question industrial wisdom and advocate actions that in fundamental ways change the rules of the game (Daft and Weick, 1984). It can therefore be theorised that these companies follow a challenging approach, unconstrained by beliefs shared by the majority in the industry and thus being able to shape the future of the industry, at least in comparison to the previous approaches. Not only situational beliefs, but also the more deep seated institutional beliefs within the industry are questioned. Thus, these companies change both the rules of the game and the boundaries of the industry, to use concepts from Baden-Fuller (1995).

The approaches to industrial wisdom are thus in line with the overall characteristics of M&S typology. The defender chooses to take actions

---

264 The concept of stretch is adopted from Hamel and Prahalad (1993). They discuss "stretching" as the ability to use limited resources in creative ways to leverage the effects. In this study a similar approach is taken as stretching implies the creative process of partly constructing a new reality enhancing an efficient use of company specific resources.
that follow the industry development and consequently takes an adaptive approach to justify these actions. The prospector initiates ideas within the industry by taking action and following a challenging approach in argumentation and justification processes. Finally, the analyser, in between these, copies the industry trends, but only to a certain degree; a paradoxical combination of challenge and adaption, also apparent in justifications and argumentations. The analyser challenges some issues, but follows both situational and institutional beliefs in general.

**Figure 8.1. Strategy formation in two dimensions**

![Strategy formation in two dimensions](image)

As M&S recognise, solutions to administrative, engineering and/or entrepreneurial problems are not always reconcilable. In fact, the fourth strategy type, the reactor, exemplifies this. In the following analyses, the typologies above, the division between the argumentation and justification dimension on the one side, and the action outcomes dimension on the other, will be discussed in relation to the six vignettes and thus further insights into the relationship between strategy formation in individual companies and the change in industrial wisdom will emerge.

### 8.2 Strategic changes in six companies

**Vignette 1 - SCA’s acquisition of Mölnlycke**

This strategic change can be traced to 1963 when SCA’s researchers developed a product useful for female sanitary protection. In the
1960's, business developed as demand grew. In the beginning of the 1970's, a choice had to be made. Was SCA to continue to invest in hygiene products, or should the company concentrate on the forest sector? (Andersson, 1993; Haslum, 1993:183). The hygiene operation was sold to Mölnlycke in 1973.

“If we were to continue our operations within this sector, we would be faced with extremely high costs for product research and marketing development; these resources could, I feel, be put to better use within the forest industry." (Rydin, SCA tidningen 1973:5)

At the annual shareholders meeting in 1973, a strategy for expansion in the forest sector was outlined. This would lead to a substantial increase in production, but only a marginal increase in wood consumption. The latter was to be achieved through closures of old units and adopting more efficient forestry methods (Rydin, SCA tidningen May 1973). The divestment of the hygiene operation was part of this strategy. The emphasis on continuous forward integration was still part of the overall strategy as SCA became a part-owner of Mölnlycke and, thus, the future supplier of pulp to an expanding hygiene business area. The co-operation between the two companies continued and in 1975, a new solution was reached when SCA took control of Mölnlycke.

In 1974, 72% of the turnover came from the hygiene sector in Mölnlycke. Other product areas were textiles, boats and sewing threads. The company had grown quickly during the last few years and all forecasts pointed to a continued rapid growth in the coming years. This was necessary, as costs for marketing and research were high (Mölnlycke, Annual Report 1973, 1975). At the same time, SCA, as did all other pulp and paper companies, “lived in the shadow of wood scarcity” (SCA tidningen, 1975). High profits were made in 1974 but long term prospects in traditional product areas seemed to be limited. Mölnlycke offered a short cut to increased growth. Furthermore, it was calculated that Mölnlyckes growth could increase the demand for pulp, and in this way guarantee a continuous outlet for the production of pulp, thus providing increased resilience against fluctuations in business cycles.

“As all other forest industry companies during the last 10 years SCA’s
profitability has been very uneven, because we are what are known as "cyclical companies" - i.e. those extremely exposed to, and dependant upon the business cycles. One of the reasons for our merger with Mölnlycke was to be able to "even out" our profitability figures. “

(Browald, SCA tidningen 1975)

and further on in the article he continued,

“Referring again to the SCA-Mölnlycke merger, the advantages gained by SCA in terms of integration and diversification should also be mentioned." (Browaldh, ibid)

In 1976/77 SCA acquired 44% of the shares in Bahco, which complemented SCA’s operations in the engineering industry. The action was motivated by the same arguments justifying the Mölnlycke acquisition.

“The acquisition of shares in Bahco AB can be seen in the same context as our merger with Mölnlycke. This is the way of expansion we have chosen as we can now see that our forest industry production is threatened by limitations of Swedish raw material supply. “ (Rydin, SCA tidningen May 1977)265

In 1979, Mölnlycke accounted for 30% of the total turnover of the concern. In comparison, the share of the engineering division was 8% and the traditional forest products 51%. In 1974, traditional forest products accounted for 76% of the total turnover (SCA, Annual Report 1974, 1979).266 In an interview from 1977, the CEO, Bo Rydin, answered a question about the future of the P&P industry in Sweden:

“Well, yes, perhaps in the long term perspective the phrase "crisis sector" could be used if we do not adapt and react to the new conditions resulting from the emergence of new cheap raw material

265 The shares in Bahco were sold in 1980.
266 Forest products include the production of corrugated board, newsprint, printing paper and pulp. This part of the company accounted for 76% in 1974 and 51% in 1979. In 1990, the share had increased to 54%.
supplies from South America and Africa. Initially, it is our production of market pulp which we may be forced to reduce... In my opinion, it is not certain that we will be able to compensate this reduction with our own production of different paper qualities. It may be difficult to find enough of these to process all of our present pulp production.” (Rydin, SCA tidningen July 1977)

Discussion
Since the middle of the 1950's, SCA had focused on a strategy that aimed at integrating the large production of pulp with a large-scale production of paper. The first step was to invest in newsprint production (decision taken in 1955). The second step was to invest in the production of kraftliner (decision end 1950's) and the third step, to acquire converters, i.e. producers of corrugated cardboard, both in Sweden and internationally (commenced in the middle of the 1960's).

Hence, the strategy of adding value to the production of pulp was being implemented following its inception in the 1950’s. However, the decision taken in 1973 to divest the hygiene product area was also logical, as that area was seen as part of an unknown sector dominated by consumer products. In 1973, prospects for traditional pulp and paper products were tremendously good and management generally advocated a concentration in these traditional areas. The change in strategy just a few years later was initiated by the acute need of capital in Mölnlycke. However, the anticipated bottleneck in the future supply of wood, an important issue in 1974 and onwards, was used to justify the decision.

Thus, the issues in the debate during the middle of the 1970’s were obviously of importance when the decision was made to acquire Mölnlycke. The acute shortage of wood and rapid shifts in profitability were obviously the principal reasons for the acquisition. The acquisition was also in accordance with the labels and solutions favoured at that time. The acute shortage of wood was taken very seriously and was responsible for many actions. Diversification (mainly related diversification) as a solution was also heard in the debate in the 1960's and the 70's.

In this way SCA adapted to the situational beliefs reflected in issues, labels and solutions, which together with company specific resources
(in this vignette a substantial cash reserves from the two profitable years in 1973 and 1974), and the sudden problems facing a large customer, offered the opportunity to initiate strategic action. An action well connected to the industrial wisdom (i.e. value addedness and integration). Applying the scheme developed, SCA characterises the adaptive approach in the argumentation and justification process. The change, seen not only as important, but vital for future development, reflects the situational beliefs surfacing in context specific issues.

However, it must not be overlooked that the actions taken were rather new to the industry. Thus the company took a new and important step forward in the ongoing integration process when they entered a consumer-oriented industry. That is, it was an action in accordance with the development toward further integration, even though it was implemented in a way rarely experienced previously in the P&P industry. Thus the typology of SCA's acquisition of Mölnlycke can be identified as adaptive in argumentation and justification, but analytical in action outcome.

Figure 8.2. SCA's acquisition of Mölnlycke

Vignette 2 - Iggesunds investment strategy

Iggesund was, in 1959, a one mill company. Members of the Sundblad family had been CEO's since 1921. Gunnar Sundblad, CEO 1921-1956, constructed the pulp mill in 1914-1916. At that time, its production capacity was 25,000 tons. Lars G Sundblad succeeded his father in 1956, when the company was a medium sized producer of

267 The company went public in 1949. It had been controlled for a long time by the Trygger family who owned about 22% of the shares in the company (in 1956). The
market pulp and sawn timber.

Because of the experiences of the financial crisis in the 1920’s, Gunnar Sundblad was extremely cautious about making new, large investments. The largest investment after the Second World War was diversification into the chemical sector in 1951, which increased the cash flow and profitability even though it was not intimately connected to the core business. Other expansion plans existed during the war. The investment in a kraftpaper mill was however abandoned for unknown reasons. During the years after the war, Iggesund was very profitable but in need of investment (Boman, 1985).

In 1954 Lars G Sundblad went on a nine week long trip to the US. Visiting a large number of paper and pulp mills he gained an insight into future trends. He saw that capacity must increase in the Swedish pulp mills, and that large-scale production was the recipe for the future. As a result of this impression, the company's financial status and general optimism concerning the future in Sweden, a decision was taken to invest in the pulp mill.

The investment resulted in a large increase in capacity from 83,000 tons (1955) to 130,000 tons (1963). The technology used in the mill limited their options of integrating the production of pulp to three paper grades; writing paper, tissue or board. The need to integrate pulp and paper was a further impression gained from the trip made over the Atlantic. However the choice of producing board was by no means obvious. At the same time, nearby MoDo showed an interest in the tissue market. Tissue was an established product, growth prospects were good and financial investment was low compared to a board machine. However, if marketing costs were included the picture changed.

“We calculated with the installation of a tissue machine being well

largest owners were all families. Five families (including Trygger and Sundblad) owned together about 50% of the company. The Sundblad family owned about 8% of the company in 1956.

268 The reason for the acquisition was the market demand for chlorine. EKA produced substantially more chlorine than was required in Iggesund’s operations, but the company was low-priced and at the time the market for chlorine increased.
aware of the general price level of tissue products in the US. It seemed extremely promising. But when we examined our calculations in more detail, we became aware of something called "marketing costs". Taking these into consideration the result was devastating. However, we still considered tissue as an alternative for a long time." (Sundblad L G. 1995)

In 1961 the decision to invest in board was made. Board of the white bleached grade was a common product in the US, but hardly used in Europe. The new technology (the Inverform technology) adopted, was a result of a close co-operation with Beloitte, a machine manufacturer in the US. At this time, only two other machines producing similar products had been commissioned in Europe: Enso-Gutzeit in Finland and Container Coperations (US-based company) in Germany. In 1962, a second Swedish company, Billerud, also started the small-scale production of a similar grade.

The product area Iggesund entered had for many years been predicted to be one of the future growth areas in the P&P industry. In 1942, Ruben Rausing (the founder of Tetra Pak) reflected over the trends in the P&P industry. Using the US as a role model, he foresaw a sharp increase in the use of kraftpaper, corrugated cardboard, board for consumer products and newsprint. This was an early prediction, but it was followed by similar ones that gradually increased the attention paid to the US development.

Iggesund's production of board started in 1963. The initial capacity was 33,000 tons. In 1968 production had increased to 62,000 tons from the single machine. Initially, the idea was to sell the board to producers of liquid packaging. The success of Tetra Pak in this area was a clear indication of what was to come in the future. However Tetra Pak preferred another solution and Iggesund's board became used as a high quality product in the packaging of food, cigarettes, records and many other consumer products. In 1968, after a complementary investment, board with a plastic coating was introduced on the market.

In 1968, it was time for the second machine. According to Boman (1985), the localisation was an open question. The obvious choice was to install it at the Iggesund mill. However, a perhaps more viable alternative would be to locate it within the EEC - closer to potential customers. When costs were reviewed, the decision was taken to build
in Iggesund. In 1972, the total production was 143,000 tons of board and 335,000 tons of pulp (a large part of which was integrated with the production of board).

“And recently Iggesund has commissioned KM2 - a production line with an annual capacity of 100,000 tons and thus able to fulfil the great hopes from 1961. This new product has established itself in a growth market.” (Svensk Papperstidning, 1971:18 page 585)

The investment in Iggesund is often described as a success, seen and admired as a role model for the desired development in Sweden (cf Svensk Papperstidning, 1984:10). It also represented a high risk for such a small company. If there was no market for the new product, the company would have, most likely, been put out of business within a few years. However, the choice of products and the integration as such was not questioned at the time.

“Strangely enough, there were few who questioned this project. It was as if we had embarked upon a journey which many had considered, but no other had dared. We knew that SCA had been looking at this - and had fairly advanced plans - but did not dare trust forecasts of market development and increase as we did.” (Sundblad L G. 1995)

**Discussion**

A prerequisite for the investment in Iggesund was the financial status of the company. The stable ownership together with the accumulation of large profits in the 1950’s increased the company's resources - the question was; which line of development should be taken? In the vignette, the influences from the North American market can be seen as extremely important for future development. The trends in North America supplied the role model for the development in Iggesund. In this way Iggesund adapted to, and took an active part in the institutionalisation of the belief in North America as a role model. The related, institutional belief in a single production concept, is also applied and reinforced in the company's arguments and actions. The emphasis on large-scale integrated production is illustrated by the investment behaviour.

However, in the choice of product grade, Iggesund illustrates the
inherent flexibility of industrial wisdom. The choice to go beyond the obvious bulk products and to focus on the emerging market for advanced board products, products that could be combined with plastics, illustrates that decision-makers perceived plastics as a future opportunity. The uncertainty inherent in entering an unknown product area, was, by Iggesund, regarded as an opportunity (Sundblad L. G. 1984). This innovative thinking within the frame of the industrial wisdom is, in retrospect, often regarded as a role model for the entire P&P industry (cf Petersson C. 1996). When mainstream producers repeatedly chose to add value by increasing capacity in bulk products, Iggesund was an example of how to create a market niche.

Iggesund thereby adapted to the normative advice provided by industrial wisdom and applied this to the company specific conditions. The adaptive approach in the argumentation and justification worked out well as the action outcome was in line with the advice. However, rather paradoxically, Iggesund stood out as one out of the few companies who were able to convert the normative advices given in the debate into action. The reason was that the company was in a position to apply the solutions advocated by industrial wisdom. This point is important to remember as there were many small and medium sized market pulp producers that experienced the same situation as Iggesund. The factors of stable ownership, experienced management, and extensive financial resources were probably the difference between Iggesund and the majority of those companies. Those contextual specific resources were the foundation of the company's action capability.

Regarding the action taken, it is difficult to classify Iggesund as a proactive company. The strategic change, even though admired by many, was, in reality, followed by few. Defining proactive as being somewhat ahead of development, Iggesund does not meet this requirement. As noted above, Iggesund is still today one of the few pulp and paper mills often used as an example of "how the bulk industry could be transformed into a niche industry". The strategic change, radical at the company level, did, in the action dimension, at the most, confirm industry development. Thus, Iggesund can, in this dimension, be regarded as an analyser.

Figure 8.3. Iggesund investment strategy
Vignette 3 - The becoming of STORA

In 1983, STORA’s turnover was SEK 5.7 billion. Seven years later, this was SEK 62.3 billion. The growth in turnover averaged some 41% annually. A surprisingly high figure in a company focusing on products with an annual demand growth of only 2-3%.

In the early 1980’s, STORA divested its interests in the mining and steel industry. Problems related with this traditionally large and important part of the company, had been occupying management resources since the 1970’s. At the end of this decade and in the first years of the 1980’s a consolidating strategy, in accordance with the industrial wisdom, was initiated.

“I am talking about security, not expansion. At least not an expansion giving more jobs. We have a certain flexibility regarding added value production. this is one of the reasons we see for encouraging the growth of Grycksbo (writing paper)” (Sundblad E. 1983:9)

In a report from the end of 1983, strategic change was emphasised and became more outspoken. The increase in production capacity in Grycksbo was to be followed by the acquisition of two or three paper mills, producing writing paper within the EEC. Furthermore efforts to acquire or build converting facilities and increase marketing operations in these countries were also to continue. Pegenova, the merchanting operation partly owned by Papyrus, was to be responsible

---

269 If acquisitions and divestments made during 1990 were included on a yearly bases (proforma), the figure would be SEK 72 billion.
270 According to a forecast made by Jaakko Pöyry in 1985.
for this operation.

In 1984 Bo Berggren took over the position of CEO when Erik Sundblad unexpectedly died. This was the start of an extensive wave of acquisitions. Late in 1984, STORA acquired Billerud, at that time a large producer of packaging paper, paper bags and market pulp. Billerud was almost as large as STORA, its estimated turnover in 1984 being SEK 5.5 billion. The immediate advantage of this acquisition was not obvious and Bo Berggren, repeatedly explained that it was a question of establishing a broad industrial base for further expansion (Bergslaget, 1984 September 26). A line of reasoning also pursued in a book, published the same year.

“The combination and merger of STORA-Billerud creates the size necessary to undertake ongoing restructuring and plant renovation without any discernible effects upon company activities.“ (Berggren, In Samtal om STORA, 1984:29)

Berggren also admitted that the choice of Billerud was more opportunistic than the result of considerations of possible immediate synergies. However, the plans to expand the production of writing paper were not forgotten. In 1986, STORA took the next step as Papyrus, the second part-owner of the paper merchant Pegenova, was acquired. Papyrus with its turnover of SEK 4.9 billion, was mainly involved in pulp, newsprint, board and writing paper. Many other interconnections existed apart from the shared ownership of Pegenova. The Wallenberg sphere was the dominating owner of both STORA and Papyrus. The two companies were also part owners of Hylte Bruk, a specialised newsprint producer in the south of Sweden. The third owner at that time was Feldmuhle of Germany.

In this acquisition, the motives used in the Billerud case were complemented by more short term synergies. Apart from the areas mentioned above, the increasing integration between pulp and paper as well as an optimization of forestry was mentioned (Stora Runt 1986:2; Svensk Papperstidning, 1986:15).

The acquisition strategy continued in 1988, when Swedish Match was acquired. Swedish Match was also controlled by the Wallenberg sphere. Bo Berggren argued that STORA-Swedish Match could be compared with the merger of SCA and Mölnlycke; an example of a
forward integration into consumer products. Most analysts however, regarded the acquisition as undertaken for motives of ownership structure (STORA Annual Report, 1987; Veckans Affärer 1988:12 page 134; 1988:11 page 100ff). Swedish Match was, at that time, a conglomerate with products such as kitchen furnishings, building materials, packaging and packaging systems, flooring, doors, matches, lighters, chemical products and a wide range of paper products.

The fourth and largest acquisition took place in 1990, when STORA acquired Feldmuhle-Nobel AG. The company included three product areas, of which Feldmuhle was the one for STORA’s primary interest. Feldmuhle was the remaining part-owner in Hylte (25%) but also part-owner of a pulp mill (Norr sundet, 50%). In 1988/89 a merger was discussed but the acquisition could only take place after SCA signalled an interest in Feldmuhle (cf Stora Rapport, June 1990; Affärsvärlden 1990:13, page 64ff). The Feldmuhle acquisition was motivated by Bo Berggren as follows,

"The acquisition was designed to shore up the weaknesses that were still evident in STORA’s corporate structure. One important requirement was to increase the integration of pulp to decrease fluctuations in earnings. Another was to fill the existing product gaps, such as LWC paper and recycled paper-based newsprint and board in Europe. In addition we wished to strengthen the fine paper segment in terms of production and distribution, and to increase STORA’s presence in Southern Europe. (Berggren, 1990:10)"

Discussion

In this vignette, the rapid growth of STORA has been illustrated. During this growth period, the company changed its name from Stora Kopparbergs laget AB till STORA, which inspired the title of the vignette.271

Throughout its history, the P&P industry has seen many acquisitions and mergers - the acquisitions made by STORA in the 1980’s were

271 Translated into English ‘STORA’ means ‘large’ or ‘big’, and during this period STORA really became a large company! The ‘becoming’ of STORA refers to Szominka (1991) who stresses the processual aspect of structuration with this concept. As earlier mentioned, STORA has been the name used for the company throughout this study.
thus not new to the industry. As described in chapter four, this wave of acquisitions did not start with STORA's acquisition of Billerud. Billerud had acquired Uddeholm's paper division a few years earlier, and the financial crisis at the end of the 1970's resulted in some more or less risky merger projects. The main strategy in the industry was, however, to grow organically. Furthermore, STORA’s wave of acquisitions did not stay within the country. The acquisition of Feldmuhle was the largest foreign acquisition ever made by a Swedish based pulp and paper company - a new step in the trend of ownership restructurisation spoken about by Berggren in the vignette. The STORA/Feldmuhle acquisition was followed by SCA/Reedpack in 1990, and somewhat later, SCA’s acquisition of 60% of PWA.

STORA, can thus be seen as the best example of Petersson's C. (1996:194ff) conclusion that the Swedish pulp and paper companies, with the help of their high profits made during the 1980's, were able to use acquisitions to leapfrog some of the development stages that would have been necessary if the traditional, more organic growth strategy had been used. However not clearly leading the way in a prospective manner, the action outcome is hard to classify. The decision is therefore to place STORA inbetween the analyser and the prospector - as STORA was only one of the leading in this development.

So, the actions taken were all related to traditional industrial wisdom. In some respects, the wisdom was interpreted in somewhat new ways. “Large-scale“ no longer meant the size of the single paper machine or pulp mill, rather the financial muscle, facilitating continuous investment programmes. In a similar way, the wisdom had for a long time advocated the need for further integration within the industry. In the case of STORA, this was transformed into innovative behaviour. The rapid acquisitions made were an alternative to the old strategy of internal growth, a strategy which dominated the post-war period.272 STORA's strategic change had an extensive impact at the industry level in the 1980's as described in chapter seven. However, several companies followed the same path during the 1980's and it is

272 According to many sources, Marcus Wallenberg resisted mergers between the companies within the Wallenberg sphere. Peter Wallenberg, his successor, took another view which made the wave of acquisitions possible (cf STORA och Peter Wallenberg, 1974-1992).
therefore impossible to state that STORA led the way. The justifications for actions were adapted to the industrial wisdom, and thus based on old and well known arguments. In some respects, the implications of these arguments were somewhat stretched, as, for instance, when the "large-scale argument" was used not only in arguing for large-scale production units but also for larger companies in order to give increased financial strength.

**Figure 8.4. The becoming of STORA**

---

**Vignette 4 - MoDo’s application of the production concept**

MoDo, with its history as a large family owned producer of sawn timber and high quality market pulp, decided, in the early 1960's, to change strategy (Gårdlund, 1985). Following the old strategy, Domsjö and Husum had become two of the largest pulp mills in Europe. At this time, the focus was on the improvement of quality in pulp and in the development of the chemical industry. In 1964 Bengt Lyberg (CEO 1959-1971) stated that an important decision had been made for the future.

“We will, therefore, in future concentrate on the production of those paper qualities which are most advantageously produced within, or near to, end-user markets, bearing in mind that our ultimate goal is to extend our paper production into that of finished products.” (Lyberg, 1964:3)

The background was, as Lyberg stated in 1970, that the link between the chemical and the forest industry had disappeared, as the raw material base for the chemical industry had changed (Lyberg, 1970).
As prospects for the chemical industry were low and a future shortage of wood had been predicted in the northern parts of the country, only increased value in forest products remained possible as a development line.

In the 1960's, the first attempt to add value to the production of pulp was directed towards the tissue industry. The idea was to integrate the production of sulphite pulp at the Domsjö pulp mill with tissue products (Lyberg, 1970). The production of pulp at the Husum mill (approximately 465,000 tons in 1969) remained to be integrated. The decision to choose writing paper was not easy, even if the company had in 1964, already formed an alliance with a producer outside Scandinavia.

“When, following Mo & Domsjö’s extensive investigations and inquiries in this matter, the Board came to a decision, it could be seen as somewhat of a watershed.” (Lyberg, 1970:2)

The decision to choose writing paper was based on four factors. In an earlier attempt to integrate, the choice had been to produce writing paper. The Hörnefors pulp mill, built in 1906 started a production of writing paper in the 1950’s. The mill was, however, sold to the Forest Owners’ Association (Ncb) in 1961. But the experience and the know-how in the production and marketing of writing paper was still retained within MoDo. The second factor was the acquisition of 100% in Papeterie de Pont Saint Maxence (PPSM, France) in 1968. An alliance was concluded in 1964, but did not work out as expected. When the agreement ended in 1968 MoDo kept the PPSM mill as part of the deal. The third factor was the pulp grade produced at the Husum pulp mill. The combination of birch and pine was ideal for the production of writing paper (Gårdlund, 1985:99). Finally, the writing paper market was growing fast in the 1960’s. In Sweden, this growth was 6.5% annually.

However, the decision was not so obvious in spite of these factors. Writing paper was a minor product in Sweden. The total export in 1970 was about a 100,000 tons. In comparison, the export of newsprint was more than seven times higher than the export of writing paper: i.e., there was limited export know how. Moreover, the production of writing paper was mainly from small production units. In 1967, the average age of a writing paper machine in Sweden was 37
years, 10 of the 29 machines having been built prior to 1920. Their average production was 10,500 tons.

This ancient machine stock was partly a consequence of the old regional localisation of the paper industry. Writing paper was mainly produced in the south and, depending on the old customer structure, products were often customer specialised. A further reason for the reluctance to invest in this product was the “live and let live“ policy pursued in external trade negotiations. According to this policy, Swedish producers would mainly concentrate on bulk products which could eventually result in advantages in integrating the production of pulp and paper. Writing paper traditionally classified as a customer specialised product, and also suffering from integration disadvantages was excluded from the Swedish product range.

“In the manufacture of fine paper (i.e. writing paper) e.g., dry cellulose (chemical pulp) is mainly used as a raw material which means that even integrated mills have to take up and dry their own pulp before again desintegrating it for the production of paper.“ (Landberg, 1957:11 page 438)273

That the choice of writing paper was difficult is confirmed by a short article in Svensk Pappers tidning, (November, 1967). In this article, the plan for investment in a newsprint machine is described (at the Husum mill). This plans was still under consideration in 1968 even though the timing was wrong.

“MoDo’s plans for a newsprint mill have been postponed for the time being. Profitability forecasts are not yet satisfactory.“ (Carlsgren, 1968 August 13)

However, forecasts predicted that there was an emerging market for the standardised production of writing paper. A4 sheets and computer paper were two of the grades mentioned. This standardised production was to be complemented by niche products produced at the PPSM mill

---

273 This argument brings up a technical obstacle constraining integrative efforts. In interviews, this argument has been described as a myth - when the integrative process once was really tried out the technical obstacles were easy to overcome. The degree of technical constraints and the “mythical“ nature of these constraints have not been further researched in this project.
and later in Silverdalen.274

"We have now determined our way ahead and come to a decision about a new 70,000 ton fine paper mill integrated with our pulp mill. This can be seen as the result of a technical and marketing innovative approach, in which we divide production into bulk paper from Husum and a specialisation and refinement in the main areas of consumption. “ (Lyberg, 1970:1)

The commission of the writing paper machine in Husum coincided with an extensive growth in demand in 1972-1974. This provided management with the time needed to create a marketing organisation and to attract customers. In 1973, when the company celebrated its centenary, the chemical operation was divested. The financial resources released were used to invest in a second writing paper machine and a 50,000 ton tissue machine in Belgium. As a result of the decision to invest, the pulp capacity increased by 100,000 tons in Husum. Both decisions were somewhat adventurous.

“These units will be the largest of their kind in the trade. These investments, besides the necessary replacement investments, will incur considerable financial strain. Through a higher average rate of profitability in the future and a reasonable improvement in credit over the present low level, it should nevertheless be possible to make the planned investments. “ (Carlgren, MoDo Annual Report, 1974:1)

Both these machines were to be started in 1976-77, when the recession was over and a new growth period had been entered. In addition to this scenario, the decision to expand production was taken during a period when the shortage of wood was acute. A fact that MoDo was aware of, but to some degree neglected.

“In my opinion, the far too negative conclusions drawn from the forecast shortage of wood in Sweden have not only meant that all expansion plans within the forest industry have been postponed, but also imply that within a few years the forest industry must be prepared for a considerable reduction in overall output capacity. “ (Carlgren,

274 It must be noted that, almost simultaneously, Nymölla, a company controlled by the Wallenberg sphere, invested in a similar project.
Carlgren argued that measures such as increased importation from Africa, South America and the Soviet Union - together with increased ditching, fertilization, chemical usage and a better utilisation of residues, were all expected to improve conditions.

**Discussion**

The strategy pursued by MoDo in the 1940's and 50's is referred to in other parts of the case. The emphasis on the large-scale production of market pulp and chemical products has been described as the development line that lost terrain against the more successful - large-scale integrated production of pulp and paper products with its emphasis on bulk products as newsprint, kraftliner and packaging paper. Consequently MoDo’s decision to eventually abandon the first alternative in the 1960's can be interpreted as the response from a defender following an adaptive approach. The choice in attributing to MoDo the role of analyser; stretching the industrial wisdom when arguing and justifying, is motivated by two factors; the choice of products and their estimation of future wood supply. In their integration efforts MoDo's choice was to focus on tissue and writing paper. As illustrated in the vignette, the choice of newsprint would have been obvious for MoDo had the established pattern in the industry been followed.

Writing paper is a product that from both technical and marketing aspects is better suited for production near the customer. As illustrated in the issue analysis and the vignette, this opinion developed into an official strategy pursued by the industry during trade negotiations. The “live and let live“ policy was deeply rooted and sustained for decades. In 1983, when MoDo had two large writing paper machines and was planning for a third, warnings were still being given against any rapid expansion into the product groups traditionally belonging to Western European producers.

“We must adopt the policy of "Live and let live". This does not mean that we must relinquish all our European markets for writing paper. We can still allow these markets to grow, slowly and with circumspection. But we cannot expect the market to accept or absorb
the production capacity of a new large scale machine at once.“
(Sundblad E. 1983:6)

MoDo’s choice followed, in many respects, the institutional beliefs of the time. The production concept was followed as interest was focused on large-scale, integrated production. The choice of product however, questioned situational beliefs. The “live and let live” policy was jeopardised when MoDo (and Nymölla at about the same time) started to produce and export one of the product grades traditionally produced close to end users. This step questioned the traditional division of bulk and consumer specialised products. MoDo therefore stretched the situational beliefs in this respect.

This vignette illustrates a willingness to stretch and challenge industry wide opinions. The family owned company was often perceived as stretching their resources but actions taken were not always entirely new to the industry. In most cases, they were adapted to the overall current development of the industry, just as SCA’s acquisition of Mölnlycke was in line with industry development. The investment in the third writing paper machine at the beginning of the 1980’s was, for instance, financed in a new and innovative way which allowed the company to continue to expand, even if their financial resources did not really allow large investments that time. A further example is the acquisition of Iggesund and Holmen in the 1980’s that made MoDo one of the three largest pulp and paper companies in the country.

Figure 8.5. MoDo’s application of the production concept

Vignette 5 - Aspa and environmentalism as a competitive
advantage

In 1987, Aspa pulp mill applied for a government permit to increase its production of sulphate pulp from 125,000 tons to 140,000 tons annually. Aspa was (and is) a part of Munksjö, a medium sized producer of pulp, board, hygiene products and special paper. Aspa is located in the inland, and uses lake Vättern, the second largest lake in Sweden as a source and recipient.

As related in chapters one and four, the chlorine debate was intense in 1987/88. This issue focused on the use of chlorines in bleaching processes and was given high priority by the media and politicians. New and more rigorous legislation was demanded and authorities were therefore extremely restrictive when granting permits to expand capacity (Dagens Nyheter, 1995 August 26).

However, Aspa was granted a permit in 1988 within the confines of levels they were able to meet. Using traditional technology the mill was able to reduce effluent emissions to some 1,0-1,5 kilo AOX per ton produced in 1989. However, the permit also stipulated that the mill must further examine the possibility of reducing effluents to 0,5 kilo AOX per ton pulp. This low level was impossible to meet using traditional technology (Reuithse, 1995).

At that time EKA Nobel, Aspa’s long term supplier of chemicals, approached them to discuss the possibilities for the development of a new production process in which the use of chlorine could be minimised. EKA Nobel was, at the time, supplying large quantities of chlorine products to the P&P industry. The abrupt decline in demand for chlorine processed products forced the company to develop a new chemical process.

During experiments with the new chemical process in Aspa, a pulp grade in which the AOX was reduced to zero was produced in 1990. However, the disadvantage of the process was that the new pulp grade (TCF pulp) was initially unable to reach the same degree of brightness as with conventional bleaching.

However the new product soon became extremely popular on the

275 Today, Aspa is in the process of increasing the capacity to a maximum of 200,000 tons.
market and when Greenpeace, in March 1991 published "Das Plagiat" a copy of the most popular magazine in Germany (Der Spiegel), Aspa was the mill that supplied the chlorine free pulp (TCF) on which the magazine was printed. This proved to large groups of customers that environmentally friendly alternatives did, in fact, exist. Subsequently Aspa's image was boosted in this growing “environmental” market. Aspa’s development of this new pulp grade is an achievement worthy of notice in itself. The marketing aspect is a further dimension of the substantial interest shown. In the 1980's the P&P industry generally regarded the environmental movement as a threat. Traditionally, demands placed by the authorities were considered to be reasonable and based on acceptable grounds. But even if those demands had been met by the industry, industry experts repeatedly argued that future demands must be based on international standards and praxis. However, the environmentalists used consumers to exert further pressure on the industry. The "emotional" argument entered the debate. Greenpeace was one of the most active environmentalist movements to use this form of emotional argument (Neil, 1995).

Aspa's relationship with Greenpeace, due to the production of Das Plagiat, was seen by the P&P industry as breaking the rules of the game. This was a creative way of marketing a new pulp grade.277 Further, the company was (unknowingly) co-operating with one of the industry's most outspoken critics. That is, to say the least - the new product and the innovative effort was not applauded by all actors in the industry (Unander-Scharin, 1997).

One of the ways to distinguish the Swedish production of market pulp from the new countries entering the pulp market in the 1950's and 1960's was to emphasise the high technical quality of Swedish pulp. This could be justified partly by the raw material used (soft wood) and partly from the advanced processes that enabled the production of a high quality product. Gradually, this advantage became eroded and pulp became more of a commodity - a bulk product. But, as a result of Aspa's initiative, a new competitive advantage was introduced. An advantage that, at least in times of high demand, made it possible to

---

277 Bengt Unander-Scharin, CEO of Aspa, declares that the production of Das Plagiat was without Aspa's prior knowledge. Greenpeace published the magazine and the article about the mill, without any permission. Aspa only became aware of this "creative marketing" when journalists, potential customers and competitors reacted.
set higher price levels for the new “environmentally friendly pulp”. Södra who were somewhat slower off the mark, developed an environmentally friendly process shortly after Aspa. As a large actor in market pulp Södra was able to instigate a marketing campaign that challenged traditional ways of thinking in the industry. In 1995, Södra reported that their new brand, the “Z-pulp” (Z stands for Zero) increased their profit by about SEK 800 million, in that year alone (MiljöRapporten, 1995). The concept of marketing strategy was new to the P&P industry as it involved professional marketers and thus a substantial budget. A representative of the professional marketing consultant described the situation as follows when they received their assignment.

“The conditions were difficult. We had to try to increase sales of a more expensive product which was of no interest to the paper makers, whilst at the same time trying to create some sort of competitive advantage in a regulated market.” (Ehrenstråhle, Miljörapporten, 1995: 2)

**Discussion**

The need to satisfy demands from the authorities forced Aspa to intensify their efforts to develop a new technology for bleaching pulp. This then unproven technology was installed as a result of societal pressure on the P&P industry. The societal debate, co-operation with EKA Nobel, and Aspa’s capability to use limited resources when experimenting with new technologies are the underlying factors responsible for this strategic change. In the action dimension, Aspa was active in transforming an environmental threat to a competitive advantage. With the help of actions carried out by Greenpeace and Södra, the market for totally chlorine free pulp (TCF) increased

---

278 Aspa could apply a premium of some 40-80 dollars during a five years period. In their case, one dollar approximately equalled 1 million SEK in increased profits.
279 Being a small producer Aspa invited Södra to develop a similar product. In this way, the companies together were able to meet the demands for a regular supply of large quantities
280 Aspa has a record of technological breakthroughs. The staff was thus experienced in experimenting and the development of creative solutions (cf Svensk Pappersstidning, 1995:2)
substantially in a few years.

However, the innovation was even more important as Aspa by their actions and then Södra in both their actions and argumentation questioned the united front in environmental issues in the industry. Neil (1995) reports that an industry wide agreement, maintaining that environmental friendliness should not be used as an competitive industrial advantage existed. This understanding, even though impossible to maintain in the long run, came to an end when Greenpeace took action (Das Plagiat) and active marketing campaigns using the environmental argument were implemented. That is, a new dimension of competition was introduced, resulting in a further set-back for the institutional belief in co-operation. In the action dimension it is thereby easy to classify Aspa as proactive. 281

However, when reviewing the argumentation and justification process, the company representatives cannot be seen to challenge or stretch the industrial wisdom in any open debate. The company was for instance, not aware of the help it had been given through the publishing of Das Plagiat (Unander-Scharin, 1997; Pulp and Paper International, October, 1996). Instead, the entire change process was justified by societal pressures. New demands from the authorities forced Aspa’s management to develop and test new solutions, and, only then, did the consequences such as the growing competitive advantage become more obvious and apparent.

It is clearly illustrated in the Aspa vignette that the classification scheme postulated is somewhat difficult to apply when the change process cannot be explicitly related to the industrial wisdom. In their efforts to satisfy the demands from the authorities, Aspa’s management did not need to justify their particular choice of development strategy in relation to the industry debate. In fact management recognised the

281 Södra started an “enormous successful promotion campaign for its newly developed ‘Z’ pulp” (Pulp and Paper International October, 1996:22). The Z pulp was the second totally chlorine free pulp grade to be introduced on the market. In the campaign, Södra positioned the company in relation to an industry majority, stating that three types of critique against the development led by Södra and Aspa; “Reactionaries” (Bakåsträvare), “Short-term thinkers” (De kortsiktiga) and “Skeptics” (Skeptikerna), existed (Boken om Z, 1994). The innovative companies challenged the views held by these three types and argued explicitly that they represented an outdated species.
difficulties involved in persuading the industry majority of the need for co-operative projects, and made the choice to develop the new technology on their own. So, the Aspa vignette is difficult to classify in the argumentation and justification dimension.

**Figure 8.6. Aspa and environmentalism as a competitive advantage**

**Vignette 6 - Södra entering the pulp and paper industry**

As discussed earlier, the Forest Owners' Associations in the south of Sweden entered the industry in the 1950's. The main reason given for this was the surplus of wood in the south of Sweden. The forest owners endeavoured to stabilise price levels of wood by increasing the capacity in the P&P industry. However, this was not the only argument.

The foundation of the Forest Owners’ Association owned company for industrial operations took place in 1943 but the first steps towards an implementation of the value added strategy had already been taken in 1938 when a saw mill was acquired. During the Second World War, the association took on the large task of supplying wood for fuel. This was at a time in which both financial resources as well as moral support increased. A consequence of the Korea boom were improved financial resources. (Gummesson, 1993)

Gradually the industrial activities expanded. Initially a number of saw mills and factories building pre-fabricated houses were acquired. In 1953, the association first entered the P&P industry when Fridafors papermill was acquired. Fridafors became the first forest association owned paper mill in Sweden (Södra, Annual Report 1953). In 1955, Strömsnäs bruk was acquired. Fridafors and Strömsnäs bruk were both

---

282 As stated in chapter 4, the terms, the Forest Owners Association and Södra, the company owned by the association are used interchangeably.
medium sized established mills. These acquisitions did not increase the demand for wood in the region.

As described in section 4.3 the changing view regarding the balance of wood was an important factor in the plans to build a new large pulp mill in the south of Sweden. In the 1940's, the general opinion was that a shortage of wood could be predicted within a time span of 10-15 years. In the southern parts of the country, the Forest Owners’ Association was, however, convinced about the amount of wood available and thus the necessity to expand industrial capacity. The CEO, Gösta Edström, suggested, at a conference attended by governmental representatives, the initiation of a public inquiry to chart the future opportunities in the south of Sweden (Andersson et al, 1993).

“My final question is if the time is not ripe for a public inquiry to examine the forest industry in the south of Sweden, as has been done for the industry in northern Sweden (Norrlandsutredningen)...This inquiry would perhaps result in concrete suggestions as to how we can best use the forecasted increase in our forest resources.” (Edström, 1993:105)

In 1950 a public inquiry was assigned to investigate the balance of wood in the southern parts of the country. As the investigation proceeded, the awareness of the large supplies of wood spread. The question under debate was, how should these supplies best be used; to supply mills in the north of the country and thus prevent mill closures, as argued by the paper workers union, or to increase the size of the saw mill industry, or perhaps, to expand the P&P industry in the south.

Possible plans for a new pulp mill had been under consideration for a long time in the Forest Owners' Association. However, rumours concerning similar plans in the Wallenberg sphere283 triggered the implementation of the investment (Gummeson, 1993). As one rumour speculated, Hylte was considering building a large pulp mill in the south-east part of the country. The ownership of the mill was to be divided between the forest companies and the private forest owners. This was seen by the Forest Owners' Association as a trap. They suspected that the industrial companies would run the mill and the

283 The Wallenberg family is as mentioned in vignette 3 an influential industrialist owner in Sweden. At this time they were part owners in Hylte AB and owned Papyrus, both paper mills in the south of Sweden.
private forest owners would eventually, as part owners, become forced to supply wood at low prices. Their reaction was to start a similar project. However, it was not until 1957 that they received the go-ahead from the authorities. The construction of the mill was delayed by a number of initial problems (Gummesson, 1993), but finally Mönsterås pulp mill came on stream in 1959. The initial capacity was 70,000 tons.

As hinted at in this discussion and in section 4.3, the availability of wood and the prices of pulp wood were important motivating factors to Södra’s entrance into the industry. The forest companies had, for a long time, used purchasing cartels, which in reality set the price levels for wood. This practice limited the capability for private forest owners to act on their own.

However, an appreciation of the social climate at that time is also necessary in order to fully understand the decision. The pressure from socialistic ideas and the growing opinion against legislation protecting private forest owners (cf SIA 1955:1) were, together, enough to be able to envisage a threatening scenario of the future. Moreover, the trend pointing to a decrease in the number of small farmers and thus a pessimistic view regarding the future of rural life was added to this scenario. One way for the small farmers to survive was to combine farming with forestry. By building an industry of their own, private forest owners could meet some of these threats and would then be able to increase profitability in forestry.

A further argument, not heard so often, was the financial situation in Sweden. During the prosperous years of the 1950’s inflation levels favoured investments in industrial activity. Traditionally, Swedish farmers saved their money in banks. However, it was now argued that the industrial involvement of forest owners could offer them a better return on their capital.

“If these small farmers could better utilise their resources and allow these to be used in their own industrial production, this would compensate their diminishing numbers. In contrast to other groups of society, thanks to the previous generations’ parsimony, they still have an inestimable economic resource... However money, particularly in times of uncertainty, cannot be counted upon. Therefore we can’t conclude that our ancestors’ way of saving should be the only or guiding way to salvation..“ (Edström, 1956:27)
This argument seems to have been accepted as fund raising campaigns for expansion were successful. Forty-six million SEK was raised for the construction of the Mönsterås factory in 1959 (Södra, Annual Report 1959).

The Mönsterås mill was followed by a second pulp mill in Mörrum. The construction of this pulp mill began in 1959, and in a speech held at that time, the arguments in favour of the investment were summarised as follows,

“The building of this new mill is one example of the farmer's efforts in protecting their rights and securing ownership of their forests in the future. I hope and trust that this mill will not only benefit our small forest owners, but also this area and the country as a whole.” (Edström in Gummesson 1993:157)

This project was, not surprisingly, resisted by the forest companies (Andersson et al, 19--). The construction of a pulp mill in Nymölla, just a few miles from Mörrum, was one way the established industrial companies attempted to restrict the growth of the Forest Owners' Associations. After some upgrading, Mönsterås and Mörrum together increased the pulp capacity in Sweden by about 5%.

Discussion

The strategic change described here took place at a time when the predictions of an acute shortage of wood were being re-evaluated in the 1950’s. The emerging awareness of a large, unexploited source of wood in the southern parts of the country was confirmed and became an acknowledged fact, when the government inquiry presented its conclusions.

The results presented by the public inquiry in 1950-1956 became important arguments in motivating an expansion of industrial activity in the south. This was recognised both by the established companies and the Forest Owners' Association (Södra). The new opportunity that emerged as a result of the re-formulation of the old issue, was the reason for the conflict. The Forest Owners' Association, mainly represented by Gösta Edström, pleaded for a reformulation of the issue. When Edström suggested the initiation of a public inquiry in 1949 he was probably already fully aware of the conclusions it would
reach (cf Andersson, 19--; Gummesson, 1993). The reformulation of the issue, and thus the emergence of a regional perspective concerning wood supplies can thereby be described as actively shaping situational beliefs.

But if Edström was convinced of the results of the investigation beforehand, why did he not then go ahead and build a pulp mill immediately, instead of waiting for interest to grow among the established actors in the industry? The idea of establishing itself in the industry had been present a long time in the Forest Owners' Association. The acquisitions of Fridafors and Strömsnäsbruk were the first steps taken. However, before the extent of the growing stock of wood was an established "fact" and signs of actions from competitors emerged (confirming the "fact"), Edström had difficulty in persuading the private forest owners to proceed with this large investment. The Forest Owners' Association was a movement containing many different opinions and diverse interests. To mobilise its inherent resources was therefore difficult, and even a dynamic agitator such as Gösta Edström needed the most convincing arguments. In as much as "the expertise", that is, the established P&P companies, maintained that there was no excess supply of pulp wood in the south, Edström had a great deal of scepticism to overcome within the movement (Andersson et al, 19--).

So, even if Gösta Edström's ability to persuade members of the Forest Owners' Associations to build up the financial resources and to mobilise the movement in adventurous and creative operations is now widely recognised,²⁸⁴ he did not have the power to use these resources as he chose without the re-formulation of industry beliefs.

This vignette provides a good example of how a company stretches some situational beliefs within the industry and thus, in an active way negotiates the environment. The change achieved did not, however, challenge the institutional beliefs. It was only on one issue that Södra challenged the shared belief structure. A reason for this was probably that the management of the the Forest Owners' Association relied on societal issues in their arguments and justification. The overall trends

²⁸⁴ Persson et al (1977), reviewing strategic long term planning in different companies, concludes that Södra had a low degree of formalised planning. In most cases the CEO was running the operation on his own or as the leader of a small team.
occurring in society provided the cornerstones for these arguments for change. Following this argumentation, the private forest owners were forced into taking action or eventually losing all influence and perhaps even disappear as a social group. The decision taken to enter the P&P industry was a result of the belief that forward integration was the best way to protect their interests. That is, in this and in other issues, the Forest Owner's Association did not oppose either situational or institutional beliefs in the industry. Furthermore as the movement gained strength and mobilised its inherent resources into an action capability, the action outcomes can be seen as in line with overall industry development. Applying a historic perspective we can see, that the forest associations in the south followed the same line of development as that of the pulp companies in the north. Firstly, the construction (or acquisition) of large pulp mills. Secondly, forward integration, as these pulp mills were integrated with paper production. In this, the Forest Owners' Association by their actions exhibits the characteristics of a defender, imitating the overall trends in the industry.

Figure 8.7. Södra entering the pulp and paper industry

8.3 Industrial wisdom, argumentation and justification

In this section the discussion concerning different approaches in the justification and argumentation of strategy formation processes is

---

285 This forward integration occurred to some degree in the 1970's. The recession at the end of the decade did, however put a stop to further efforts and in the 1980's the company finally decided to concentrate on market pulp.
In the **adaptive** approach, focusing on justifications and argumentations corresponding to inherent advices given by industrial wisdom, the important issues of the time are addressed. When reasons for strategic changes are given, the labelling of industry-wide issues follows the majority view and those solutions considered the most suitable are often directly connected to those commonly suggested in the debate. The industrial wisdom is consequently both an important source of inspiration for strategic action (showing the available options) and of use as it enables the action (provides legitimacy).

SCA, Iggesund and STORA in the first three vignettes illustrate this approach. The management of all three companies argued along the same lines as the industry trend at large - i.e. they argued according to existing situational beliefs. They also adapted the proposed connection between issues, labels and solutions, that is the arguments were in line with the institutional beliefs.

Studying the industry evolution, these companies and their management emerge as “influential”. SCA had, as discussed in chapter seven, been pursuing a strategy of forward integration since the 1950's. A process which was in line with the overall industry development and thus a strong argument to justify the changes described in vignette one. Iggesund was led by the second generation of a "pulp and paper family": a family that had traditionally been influential in the industry debate. It is thus no surprise that the strategic actions undertaken at the end of the 1950's and 60's were linked to what was regarded as the overall development of the industry. STORA was a company with a long history within the P&P industry. A company in which tradition was of great importance as was their ambition to maintain a role of "industry leadership ". Considering this ambition it was necessary to refer to the industrial wisdom to gain justification to their proposed action.

On the industry level, the adaptive approach confirms and reproduces industrial wisdom. Situational beliefs expressed as issues, labels and solutions are used and confirmed and thus regarded as important when connected to strategic actions. This is an approach that is an important leverage to incremental changes in the industrial wisdom (see chapter 7).

Compared to the adaptive approach, the **stretching** approach is more manipulative, as this includes re-interpretating some of the industry
issues. As such, the stretching approach exemplifies ways of arguing and justification that opposes the content of some of the issues, labels and/or solutions. It can therefore be assumed that the stretching approach is often taken by organisations that are active in the industry debate and feel they need to distinguish themselves from the majority view in their justification and argumentation. They value their self perception as "being apart" or differentiated from the crowd. Both MoDo and Södra represent this approach, two companies in which dynamic top executives used emerging opportunities to launch somewhat new ideas. One can speculate if the "family concept" (MoDo) and the "forest owned concept" (Södra) were not the basis of distinct identity in these two companies. A construction of identity in which the stretching of the industrial wisdom was a vital element.

For example, in 1985 Mats Carlgren, the chairman of the board of MoDo and representative of the controlling owner family, declared that MoDo had been willing to take financial risks many times in the past and would continue to do so in the future (Carlgren, 1985:174). Carl Kempe obituary, also illustrates the climate of risk taking and thus stretching.286

"With his characteristic commitment based on an unusually deep insight he became intimately involved in decisions concerning corporate investments and he encouraged his team to take risks. Why should we be satisfied with a 50 % increase in current production - why not 100 %? It has been said about Carl Kempe that he was always lucky in his investments. This is perhaps not always true, but makes you think of one of his own aphorisms - "When luck keeps on coming, its not luck, its skill." (Svensk Papperstidning, 1967:15 page 485-486)

This almost mythical belief in risk-taking was often related to the behaviour of the majority in the industry. That is, the concept of risk was defined according to the average behaviour in the industry. This shows the need to relate the family and the company in relation to the industry, just as Södra and Gösta Edström needed an 'opposition' to relate the company to (vignette six). The development of strong

286 CEO of Modo 1916-1949. Carl Kempe was also chairman of the Board untill 1965.
organisational identities can thus be connected with the stretching approach. In both vignettes the two companies wanted to remain a part of the P&P industry. If they had considered the industry as being irrelevant they would consequently have lost their comparative bases for their positioning. Hence, these companies could only challenge some issues, i.e. still only stretching certain aspects of the industrial wisdom.

The background to the application of the stretching approach is difficult to determine exactly. The interaction of contextual characteristics, i.e. the pattern of ownership, the historic evolution of the company, or the personality of leading individuals, were, in these two vignettes, capabilities needed to take actions and maintain opinions that opposed traditional views. As a result of successful argumentations the stretching approach can result in changes of situational beliefs on the industry level.

Finally, the Aspa vignette is somewhat difficult to classify. The **challenging** approach, not used in the vignettes above, offers an opportunity. However, this approach relates to companies that, in a fundamental way, oppose the industrial wisdom. Salzer (1994) describing Ikea discusses the identity of a challenger as follows,

"**IKEA’s paths from Älmhult to a successful conquest of the world are dressed in the expressive language of an organization which all the way long has had to fight the outside world, to question the normal and challenge the established "they". In the saga, IKEA is depicted as a rebellious "outsider" that becomes a threat for the "establishment"."**

(Salzer, 1994:187)

Aspa would, however, not appear to be a very good example of the challenging approach. Reviewing the industry debate, arguments and justifications were somewhat lacking in the formation process. The reason was that demands, formulated by the authorities, made any need for an industry debate superfluous. The actions initiated were justified by the best possible argument; the short term survival of the company. In this respect, the change initiated at Aspa is more related to societal issues.

Later when Södra attempted to pave the way for a breakthrough in totally chlorine free pulp (TCF) on the international market, the industrial wisdom was challenged. At this stage, industry beliefs in co-
operation and the consensus view of how the industry should evolve, were challenged by arguments and justifications.

These two final vignettes together exemplify a weakness in the classification scheme as it focuses exclusively on the industry. As stated in chapter two, the existence of contexts are the bases for change, as arguments and justifications can permeate from one context to another. In this chapter, it is only the industry context that has been examined. The cases of Aspa and Södra illustrate the need to develop the analyses further, taking into account both the societal as well as other contexts, when analysing the arguments and justification of strategic actions.

A further limitation of the classification scheme is the assumption concerning the degree of active participation in industry wide debates. Weick (1983) and Daft and Weick (1984) distinguish between “passive” and “active” companies when it comes to “intrusiveness” in wider environments. Daft and Weick assume that active organisations allocate resources for searching activities. They also establish planning functions, make forecasts and use scenario building. Active organisations are also politically active.

“Forceful organisations may break presumed rules, try to change the rules, or try to manipulate critical factors in the environment.” (Daft and Weick, 1984:288)

On the other hand, passive organisations accept information received. They are not active in their search for information but rather adopt the view that, as they have no current environmental problems, resources can better be used in other areas. These companies becomes “test avoiders” according to Daft and Weick (1984:288).

In this distinction Daft and Weick assume that companies, inactive in politics, also are passive when it comes to searching for information. The three types postulated here, included in this assumption, i.e. those classified as adaptive were considered test

---

287 In the discussion above, the classification of “intrusiveness” could have developed differently if more contexts had been incorporated in the analyses. Furthermore, Daft and Weick conclude that organisations can be divided according to intrusiveness and assumptions about the environment. The latter variable is not possible to discuss further in the present study.
avoiders, and those classified as stretching and challenging were assumed to be companies pursuing political activities. Without the support of extensive empirical research, it is difficult to discuss this assumption in depth. However, from the data here reviewed, questions arise. It is not always obvious that companies following an adaptive approach in strategy formation processes were inactive in their search for information or in political activities. On the contrary, several of the companies showing an adaptive approach were active in industry wide negotiations.

8.4 The industrial wisdom and action outcomes

In the second dimension the three types of action outcomes represent strategic types that, more or less, shape industry wide structures. The **defender** is a company that, in its actions, follows the traditional pattern of the industry and thus reproduces industry wide structures. In the Södra vignette, it was argued that the company, even though it stretched the industrial wisdom in the debate, adhered to the industry wide pattern in its actions. In reviewing the history of the industry, this is notable. In Södra’s case entering the P&P industry was an important strategic change. However in addition to the reformulation of some situational beliefs, the actions taken only reinforced institutionalised behaviour in the industry.

The **analyser** is represented by vignettes one to three. Three companies that all exemplify the ongoing experimentation always taking place within industries. The actions implemented were based on the institutionalised structures of the industry. However, in some aspects they provided new impulses to industry structures. In a sense, the three companies also took advantage of emerging opportunities as development allowed structural divergencies. MoDo's decision to act against the industry wide view of sector specialisation exemplifies this, as the company took advantage of the increasing demand and the opportunity for large-scale production of writing paper.

Finally **prospectors** are represented both by Aspa and to some extent by STORA. The changes undertaken by these companies were of great consequence for industry development as many others
followed their lead. Their strategic actions were, thus, important parts of the systemic change of the industry. In other respects, the two changes were very different. Aspa, not relating its actions to the industrial wisdom, aimed only to survive and create its own market niche. Their success, led other actors to follow their example. STORA’s strategic action can be regarded as being somewhat between the analyser and the prospector, as the acquisition strategy was not new to the industry and it can be argued that STORA was only following a trend set some years earlier. Pursuing extensive international acquisitions, STORA however introduced a new dimension in the trend, as the acquisition of Feldmühle opened the way for a number of large international mergers.  

8.5 Approaches, action outcomes and industrial wisdom

In the present framework, including the two dimensions of justification, argumentation and action outcome, the "in-between" status is a recurring feature. These are only a few examples that show consistency between the argumentation and justification process, and action outcomes.

From an empirical base, this must be related to the effect of the contextual embeddedness of actions. That is, in all the companies examined, their unique structural conditions influenced the formation process. When implemented, actions were both the result of interaction with industrial wisdom as well as the more specific organisational conditions. Financial resources available (Iggesund and SCA), changes in individuals managing the company (STORA), external legislative pressures (Aspa), specific company values and personalities (MoDo and Södra), are all examples of unique resources affecting action capability. Even though company specific processes which partly determine the outcome of change have not been the subject of examination of this study, these processes must be included in the theoretical framework, in order to give a deeper insight into strategy formation (Melin, 1985; Pettigrew, 1985; Oliver, 1991).

288 SCA was the other company pursuing this line of large international acquisitions.
In considering the relationship between the industrial wisdom and the company specific conditions in which resources enabling action capability to emerge, one further explanation for the "in between" status is worthy of attention. Building on theories of organisational and strategic group identity (Albert and Whetten, 1985; Salzer, 1994; Peteraf and Shanley, 1997), historic positioning within the industry must be recognised as important. Hence, any company adopting the role of challenging industry wide situational beliefs, may tend to continue in this pattern and thus justify a non-controversial strategic action with a challenging approach. Referring to authors above, the reason given for this is the continuous building and search for a distinct organisational identity. Both Södra and MoDo, show evidence of this.

Argumentation, justification and the action outcomes can also be related to the two dimensions of industrial wisdom. While arguing for or against decisions top executives are relating to or opposing the situational beliefs reflected in present industry wide issues. Examining the action dimension, reliance can seen to be placed more on institutionalised beliefs, expressed in industry wide structures. As actions are taken, industry wide structures are either reproduced or new structures are developed. Obviously, as discussed earlier, there is also a connection between the dimensions of arguments, justifications and action outcomes on the one hand, and the situational and institutional beliefs on the other. In the following figure, this reasoning is clarified.

**Figure 8.8. Strategy formation and the industrial wisdom**
8.6 A choice of approach?

In the typology suggested by M&S (1978) the choice of strategic type exists. It is not indicated in the framework if the prospector, the defender, or the analyser is more or less successful at any given time. Success is a contextual phenomenon. Overall failure is, however, represented by the reactor. Failure in this context is defined as the inability to reach any consistency in the choice between the first three types (defender, prospector or analyser). The reason for individual companies choosing between the types was not explicitly discussed by M&S. Even though only implicitly discussed, the assumption was that the types seemed to be rather stable (cf 1978:155). Daft and Weick (1984), developing a very similar typology, divide interpretation systems into four modes which permeate the scanning characteristics, the strategy formulation and decision making processes. Hence, modes are probably the most stable part in organisational beliefs.

Moreover “the environment“, is viewed from an inside-out perspective in these typologies. The environment may, as M&S stress, be more or less favourable to different strategic types. However, in
their theoretical framework, the industry is not going through phases of incremental or deep change. Referring to the previous chapters, the relationship between the individual company and the industry can be elaborated. Hrebiniak and Joyce (1985) make the point that environmental determinism is relative which also emerges from this text. In chapter seven, the discussion centred around the concept of freedom of action. This freedom grew as the industry progressed through periods of deep change, i.e. when institutional beliefs were questioned and structural dimensions were in motion. Freedom of action within the industry can only be determined at any one given point in time. The increasing profitability and optimism in the 1950’s allowed strategic actions to be taken by pulp and paper companies. The same situation appeared in the 1980’s. High profitability and optimism about the future in combination with other company specific resources extended the industry’s freedom of action. Laurila (1997) studying technological change in the Finnish paper industry, supports this finding. He found that two contextual variables a) "increases in material resources" and b) "competitive pressures" increased the awareness of top executives in their choice between conventional and advanced technology. Advanced technology, representing a perhaps somewhat more risky investment were mainly undertaken during periods when the freedom of action was high, i.e. in periods when profitability was increasing and competitive pressures were expected to increase in the future.

In this chapter, the focus has been on the company level. At this level, we have seen that companies, depending on their size, past actions or future prospects etc. differ in their approaches to industrial wisdom. Following Hrebiniak and Joyce, together with above analyses, it may be concluded that different combinations of “freedom of action“ and “resources“, enabling action capability, exist in an industry. These individual and specific combinations allow some companies to challenge industrial wisdom. A multinational company given the choice of moving production from one country to another, is in possession of a relatively high capability to act in the infrastructural dimension. Production determinants in any given country, are however, highly constrained by exogenous factors (level of wages, labour relations, taxation etc.), i.e. freedom of action is limited in the specific country. This illustrates the situation in which a company has considerable capability to take action, at the same time that this
freedom of action in specific contexts is rather low. This situation is
typical for the large Swedish-owned pulp and paper companies at the
end of the 1980's.

The framework developed by Hrebiniak and Joyce focusing on the
organisational level, can be extended in two ways. The freedom of
action can be typologised according to the types of industries and
contextual conditions within the industry, as speculated in chapter
seven. In this context, it is possible to relate the three structural
dimensions and the level of inertia. The higher the level of inertia in
the three structural dimensions - the lower the freedom of action. The
opposite is also possible, i.e. when inertia is low, freedom of action
increases for the individual company.

The options available for a specific company are thus partly
constrained by the freedom of action that appears at any given moment
in the industry. In periods of deep change, companies are inclined to
adopt the stretching approach to industrial wisdom and implement
new solutions in their actions. In periods of more incremental change,
companies tend to follow the adaptive approach and thus reproduce
the industrial wisdom both in arguments and in their actions. It can
thus be theorised that the choice of approach is, to some degree,
related to the industry phase.

Returning to the Swedish P&P industry, this framework suggests
that companies experienced increased freedom of action during long
periods of time (1945-1965 and 1980-1990). These periods limited the
phases in which deep change of the entire industry took place.
Regarding the individual company, we can see that a high level of
freedom of action existed prerequisites for the use of this freedom
were, however, resources and action capability.
9. Conclusions and implications

The aim of this concluding chapter is three-fold. Firstly, the theoretical language, emerging from this study is summarised and related to a theoretical field. Secondly, some practical implications are discussed. Finally, prospects for further research are presented which will hopefully inspire researchers in their future endeavours.

9.1 The theoretical field

In chapters one and two, the "theoretical field" was introduced. In which a) studies focus on individual cognition as well as cognitive phenomena in groups of individuals; b) cultural studies as well as institutional theories concerning thoughts and behaviour are examined, perhaps best summarised under the label "social cognition" (Simsand Gioia, 1986; Huff, 1990:13; Stein, 1993; Meindl et al, 1996) a concept focusing on shared beliefs and the organisational implications of belief structures.

"A social constructionist or sociocognitive perspective of organizational dynamics proceeds from a basic proposition: organized actions, including the creation and use of knowledge, are structured by the organized systems of constructs which organizational participants use to interpret and anticipate events. These construct systems or cognitive infrastructures facilitate and restrict an organizational participant’s range of cognitive and social options." (Dunn and Ginsberg, 1986:957)

In chapter one some research carried out in this field was summarised. In this process, a basis for the present study emerged. The following requests for further research were identified: The need for longitudinal

289 Language is here to be seen as a set of interrelated concepts (see chapter 3).
and processual studies focusing on the negotiated environment, and studies that explicitly examine the role of shared beliefs in strategy formation processes. In the following, I will summarise the theoretical language that emerged and relates to these requests.

9.2 A language to understand industry evolution and strategy formation

The result of this study is, as stated above, an emerging language which aims at providing researchers as well as practitioners with new insights - which (hopefully) will enable them to better understand social processes and increase their ability to take considered actions (Norman, 1970). In the following, the most important parts of this language are presented as a number of statements (in bold letters).

Issues, labels and solutions

Using the theoretical framework the Swedish P&P industry during the period 1945-1990 was examined. A set of industry wide issues emerged. These issues focus on threats and/or opportunities for the Swedish P&P industry and are therefore labelled as such. Moreover, solutions related to issues are identified. The definition of issues during the post-war period meets the quest for processual and longitudinal studies described in chapter one.

The analytical model of issues, labels and solutions is the first part of the language to emerge. These concepts are useful tools to describe industry evolution in a processual way.

Studies focusing on an aggregate of companies such as an industry, often use a single event or issue to develop a focus for the study. Issues mirror societal trends as "environmentalism" (Andersson and Wolf, 1996; Dobers, 1996); changes in legislation (Leavy, 1991, Miles R. H., 1982) or deregulation (Meyer et al., 1990). In these studies effects of exogenous change on the industry or a group of companies are analysed, often giving little regard to other issues of importance
(Thomas et al, 1994). However, literature on management behaviour argues that top executives simultaneously work with an array of issues (cf Carlsson, 1951 in 1991; Mintzberg, 1973; Weick, 1979). According to this literature, the ultimate task of top executives is to find ways of combining issues and solutions into wider patterns, to make sense of emerging trends and to communicate this to organisational participants, i.e. the activities of sensemaking and sensegiving (Kotter, 1988; Gioia and Chittipeddi, 1991).

Hence, when aiming to understand strategy formation it is restrictive to study only single issues. Results emerging from "one issue studies" will only provide the researcher with a fragmented knowledge of the complex conditions from which strategic actions emerge. Instead, the methodological approach here is to study relevant sets of issues over a long period of time, and thus reach a more holistic knowledge of strategy formation in its context. Moreover, a further point is that "issues" are not formulated in advance according to this methodology. Issues emerge through empirical interpretation, using a method with some characteristics of the grounded theory approach (Glaser and Strauss, 1968).

**Situational and institutional beliefs**

From the empirical analyses the problem emerged of including both stability and change in the operationalisation of industrial wisdom. The result is to distinguish situational and institutional beliefs. Issues, labels and solutions reflect situational beliefs which are identified when industry experts take part in industry specific debates. That is, shared opinions in these debates express situational beliefs. However, the further analyses revealed the existence of a deeper level of shared meanings within the industry, i.e. in the form of institutional beliefs that generate some continuity of understanding. Five institutional beliefs were identified. Furthermore, arguments were given as to how institutional beliefs, internally connected as well as connected to situational beliefs, enacted a contextual world - the P&P industry - an enactment process in which institutional beliefs materialised.

---

290 As discussed in chapter two, the process of sensemaking includes a creative constructionist activity. Thus "emerging trends" are not to be regarded as objective phenomena.
Industrial wisdom includes two types of beliefs: situational beliefs and institutional beliefs. Situational beliefs are reflected in industry specific issues, labels and solutions. Institutional beliefs influence the identification of issues, their labelling as well as the repertoire of solutions available.

The distinction between situational beliefs, as expressed in the ongoing debate, and institutional beliefs, often rooted in materialised structures, helps to comprehend how issues in a specific context are interrelated. The division also provides a starting point to understand the ongoing sensemaking process in which constraints and opportunities are constructed, as they are embedded in the institutionalised conditions characterising a specific context.

Finally when describing the relationship between situational and institutional beliefs, ideas of stability are questioned. Situational beliefs are described as stable when stated in the industry debate. An assumption is that industry experts who, without the support of new arguments, change their mind in a debated issue will lose credibility. The key words are “new arguments”. Thus, new arguments are a legitimate reason to change opinion and thus abandon situational beliefs. Institutional beliefs offer stability over time but allow, at the same time, flexibility in the adaptation process. For instance, in chapter six it is argued that the belief in co-operation led to the establishment of joint research organisations. However, this joint organisation can be used for a wide array of purposes. The normative implications of believing in co-operation are not clear. Subsequently, institutional beliefs are, at least to some degree, open to diverse interpretations.

**Industrial wisdom and change**

Changes in industrial wisdom mainly occur incrementally when issues and the implications of issues are transformed into actions. However, periods of deeper changes are also apparent, in the sense that institutional beliefs are in motion. Considering the meaning of “deep change“, two conclusions emerge. Firstly, it is a question of rather long time periods in which these more fundamental changes emerged. Secondly, it was likely that only one or a few institutional beliefs were
in a state of change.

The industrial wisdom changes incrementally as situational beliefs change. However, periods of deep change also occur in which one or some institutional beliefs are in the process of change.

To further the understanding of deep change, industry characteristics are divided into three structural dimensions: infrastructures, relational structures, and belief structures. It was proposed that industries suffered more or less from inertia in structural dimensions, and that the degree of inertia influences the nature of deep changes. Two extreme types of industries are outlined, suffering from either a high or low inertia in the infrastructural, the relational and the belief structures. A third type is also proposed in which industries suffer from high inertia in one or two dimensions. Thus the three-dimensional view of structures emerges as an analytical tool to enhance the understanding of change within industries.

The understanding of the nature of deep change is enhanced by the distinction of structures in three dimensions; infrastructures, relational structures and belief structures. The pace and nature of change varies according to the inherent changeability in these three structural dimensions.

The intensity of change varies in the structural dimensions. Phases, which can be understood as the distribution of inertia in structural dimensions, can shift during a period of time. Following these phases, the concept of a changing freedom of action is introduced with the aim of relating phases to strategy formation processes in companies. In phases of deep change, inertia is reduced in one, or several of the dimensions, hence the freedom of action increases.

The freedom of action influencing the strategy formation processes in individual companies varies according to the level of inertia in the three structural dimensions.

This way of depicting the industry evolution is thus a way to
incorporate both the more fundamental aspects of shared belief structures addressed by Phillips (1990) and the view of more fluid belief structures addressed by Spender (1989) and Hellgren et al. (1993). The freedom of action concept further indicates that environmental conditions are in a process of construction resulting in continuous entrepreneurial opportunities.

The theory of “blind spots” (Porter, 1980; Zahra and Chaples, 1990; Zajac and Bazerman, 1991) is a way to increase the knowledge of how entrepreneurial opportunities arise. The identification of blind spots, defined as "areas where a competitor will either not see the significance of events at all, will perceive them incorrectly, or will perceive them very slowly" (Porter 1980:59), are an important part of strategic analyses. The blind spots can however also be industry wide as competitors all "seem to believe in industry "conventional wisdom" or historic rules of thumb and common industry approaches". (Porter 1980:60) Consequently, a blind spot can be interpreted as inertia in the belief structure. Inertia arising as top executives in companies accept and assume the consensus view and thus strive for homogeneity.

“Such collective socialization processes homogenize perceptions across different organizations and reduce each organization’s sensitivity to the unique and unusual characteristics of its own environment” (Starbuck, 1976:1081)

However, the enactment process tends to enforce a convergence in all three structural dimensions. A homogenisation process in which structures eventually are only reproduced. In this process, there are always actors ready to take advantage of the blind spots occurring as a result of the reproduction process. This can be described as an interplay between the forces of convergence and divergence (Fombrun, 1986; Oliver, 1991; 1997). Or as expressed by Czarniawska and Joerges (1996), the reproduction of the settled is the basis for change.

"The economy of effort provided by institutionalization creates room for new ideas, which will eventually upset old institutions; a strong identity provides a basis for innovative experiments and social control creates, among other effects, social unrest and disorder. Creativity grows out of routine. Rationality breeds irrationality." (Czarniawska
and Joerges, 1996:39)

That is, these authors stress the paradoxical relationship between convergence as the striving for order; and divergence as the striving for innovative experimentation, disorder which eventually results in a new order (cf Greenwood and Hinings, 1996).

Benson (1977) adds to this when he maintains the need to study the political interest driving reality construction. Powerful top executives representing large companies are obviously of more importance in this process than executives representing minor companies in the industry (Benson, 1977:6). As a result of this, sensemaking emerges as issues are debated, in which divergers act for companies with a strong individual identity, and convergers argue for the strong united industry (often represented by a powerful trade association) (Fombrun, 1986). In the present study this conflict surfaced in several situational beliefs, but is also traceable to deep changes in institutional beliefs. In the dialectical process, the ongoing struggle between different interests resulting in phases of diversity and convergence, emerges.

**The adaptive, stretching and challenging approaches to industrial wisdom**

It must be remembered that industrial wisdom is produced and reproduced by individuals arguing, justifying and acting in a company context. The change of industrial wisdom must thus be related to strategy formation processes in individual companies. Three approaches describe how strategy formation processes are related to industrial wisdom in the dimension of argumentation and justification.

The approaches illustrate both how industrial wisdom permeates the strategy formation process, and how the prevalent beliefs were produced and reproduced in this process. The scale used, illustrates how individual vignettes can be categorised as more or less adaptive towards the industrial wisdom. At one end of the scale, the company takes an entirely adaptive approach and thus in their argumentation adheres to the normative implications of industrial wisdom. At the 291 The strength of the belief in collaboration that dominated the P&P industry until the 1980’s is thus evidence of the strength of the convergers. The divergers tended to dominate in the late 1980’s.
other extreme, the challenging approach describes a company that takes action to reinterpret issues and challenge deep seated institutional beliefs.

Following the reasoning about a changing freedom of action, it can be assumed that companies tend to take a more adaptive approach when the industry is in periods of incremental change. As periods of deep changes appear, freedom of action increases and companies are more inclined to follow the stretching or challenging approach.

However, it must not be forgotten that the action outcomes (the second dimension of strategy formation) are related to specific resources and hence, the action capability of the company. The outcome of actions taken obviously also have an impact on the structural conditions in the industry and are thus of importance in understanding how industrial wisdom can change.

In strategy formation companies interact with industrial wisdom. Thus, some companies tend to follow industry-wide issues, labels and solutions in an adaptive way when arguing and justifying strategic actions. Other companies follow either a stretching or a challenging approach, questioning situational beliefs and are also actively changing industry wide beliefs. It can be assumed that the degree of freedom of action in the industry context influences the emergence of these types.

The outcome of actions is not necessarily in line with the approach taken. The outcome of actions may reproduce the prevalent structures or produce new structures. As a result of action outcomes a pressure may gradually develop for a deep change in institutional beliefs.

The absence of examples illustrating a challenging approach was apparent in the P&P industry. Considering this, we must first keep in mind that the demands on a company taking a challenging approach are high. It is not only a question of motivating a strategic action within the focal company. Management taking a challenging approach makes a substantial impact in changing, not only the situational beliefs, but also the institutional beliefs of the industry. Recognising this difference between strategic actions on the company level and actions that have a substantial impact on the industry development, Baden-Fuller (1995) recognises that only a few companies take a
challenging approach. Thus, the lack of companies taking a this approach in the P&P industry during a period of 45 years, must be seen as indicating a high degree of homogeneity within the industry.

On the company level, further ideas developed on how the shifts between incremental and deep changes in industrial wisdom take place. The discussion about adaptive, stretching and challenging approaches can thus be used to further elaborate on the roles taken by individual companies in the overall process of reality making. As organisations take either one of these three approaches, it is also decided how they will become involved in the ongoing debate. It can be assumed that companies following an adaptive approach tend to see change as compelled by outside forces, whilst those following the stretching or challenging approaches take a more constructionist point of view (cf Smircich and Stubbart, 1985).

The language proposed and research on strategic change

Van de Ven and Poole (1995) theorise about the changes in and between organisations. They conclude that most theoretical propositions concerning change are made on the bases of consequences or outcomes (Van de Ven and Poole, 1995:524). They further argue that it is possible to identify four "motors" (i.e., driving forces) of change, and they argue for a study of how different motors are related in change processes.

In the present study, two motors were described on the industry level. The identification of periods of incremental and deep change represent what Van de Ven and Poole describe as a prescribed motor, as phases influence the freedom of action for the individual company. The dialectical motor was also apparent in these phases as it is through the ongoing debates that the industry environment is shaped. Thus, the dialectical motor expressed in the ongoing debate influences the shifts between phases of incremental and deep change. That is, applying a social constructionist perspective, there is no such thing as either a prescribed or a dialectical motor. These motors are at work simultaneously and interactively, both enabling and constraining actors. Company characteristics described in terms of resources and capabilities are therefore necessary to include in order to be able to develop an understanding of the role of the motors.

Turning to the level of the individual company, a third motor is
addressed. The discussion dealing with action outcomes, illustrates the striving towards company driven goal fulfilment. A process in which an ongoing experimentation takes place when arguments and justifications are contextually translated into actions. (Van de Ven and Poole, 1996), an experimentation that either reproduces stability or produces change in one or several structural dimensions in the industry. This view of experimentation driven by company-specific characteristics thereby addresses both the teleological motor in Van de Ven and Poole's 1996 framework as well as Spender's (1989) idea of changes in industrial wisdom occurring as a result of learning from experimentation.

Van de Ven and Poole argue for what they call "template matching", that is, the attempt to combine different motors to reach a more complete understanding of change. Following their framework, this implies the need for research that combines both the company level focus and a focus on the ongoing interactions between companies. The demand for more research to examine at increasingly higher levels of complexity is emphasised by Henderson and Mitchell (1997), editing a special issue of Strategic Management Journal on organisational and competitive interactions.

"We suspect that longitudinal studies that explicitly focus on the nature of these organizational and environmental interactions as they evolve over time, and that pay particular attention to the ways in which capabilities and environmental conditions shape each other, are thus likely to be particularly fruitful for both theory and practice." (Henderson and Mitchell, 1997:12)

292 In the special issue three categories of papers are included. The first examines industry specific impact on companies. The second focuses on how companies' capabilities influence competition. The third, consisting of two papers, “begin to speak about the reciprocal relationships between capabilities and competitive environments” (Henderson and Mitchell, 1997:11). Reviewing the two papers, the word “begin” must be stressed. In one of the papers it is, for instance, stated that "it is beyond the scope of this paper to discuss how the environment shapes the internal organisational structures..." (Ocasio, 1997:194), i.e. even if the framework presented is promising, the reciprocal relationship is underdeveloped. A more constructive approach to the same problem is taken by Oliver, 1991 and 1997, integrating the resource based view with institutional theory. As noted in chapter eight the model developed by Oliver (1991) resembles the strategy formation approaches in this
In the present study, the aim of building a theoretical language was to complement and elaborate theories of change in strategic management. In the fulfilment of this aim, the industry perspective of strategic change assisted in integrating 1) the prescribed motor; separating the incremental and deep phases of industry change - 2) the dialectical motor; focusing on the industry debate in which issues emerged and were made sense of - 3) the teleological motor; focusing on the company-driven experimentation for goal fulfilment which surfaced in action outcomes.

But even if the theoretical language developed corresponds to some of the criteria set up by Van de Ven and Poole, as well as those of trustworthiness and surprise stated in the methodological chapter, it must, however, still be stressed that the language presented is in an emergent phase.

From the above it follows that many further research questions are waiting to be explored. One of these deals with the constructed separation of the company and the environment, so obviously stated in the Henderson and Mitchell quote above. In the following section, an attempt is made to bridge this separation - the quest for contextual management. This "quest for" is an attempt to apply the language developed. It must be stressed, however, that the "management perspective" applied here includes all individuals that aim to manage, if only their own lives. In the fourth section, some further research questions are finally addressed.

9.3 A quest for contextual management

The model of “contextual management“ presented here borrows several characteristics from the typologies presented by Miles R. E. and Snow (1978) and Daft and Weick's (1984), as well as the request from Baden-Fuller and Stopford (1993) for rejuvenators. Using the language developed above, it is an outline of management as taking a
dynamic and flexible view of resources, and hence the description of a
compartment in which the capability of action is extended beyond its
obvious resources. 293

Organisations applying contextual management include the shaping
of reality as one of the points on their agenda. The first phase is to
abandon the idea of separating the company from its environment. In
fact, the entire concept of environment is abandoned and replaced with
the more dynamic idea of contexts (cf Hosking and Morley, 1991).
Berg (1985:293) argues that "context is more a matter of definition
rather than of a factual environment.". Following this definition,
contexts are flexible and can thus be renegotiated. Berg stresses
however, that this ability to renegotiate does not imply that restrictions
can be completely ignored or sidestepped. The point is instead, that a
contextual view provides a way of thinking that can lead to a more
dynamic analysis of business processes.

Figure 9.1. The traditional view - A barrier distinguishing the
company and its environment

Contextual management admits that belief systems exist and can be
inconsistent with those beliefs you adhere to, and tries to to reconcile
and reach an understanding of these “alien“ systems. To apply
contextual management is thus to question pre-defined views of the

293 Pettigrew and Whipp (1991) stress that increased understanding of the
environment from a management point of view is not enough. The real challenge is
to engage the entire company and thus construct “an open learning system”. With
this in mind, the limitations of the present study restrict the following discussion as
the internal life of the company is not considered. The view taken here can thus
perhaps be seen as complementary to the suggestions provided by Pettigrew and
Whipp.
world.

Hamel and Prahalad (1994) urge leaders to create the markets of tomorrow. Even though an appeal is made for frame-breaking, the following is stated on the front page “Breakthrough strategies for seizing control of your industry... “. Using contextual management, this traditional view of “industry” is to encapsulate your mind into preset definitions. The first task of contextual management is thus to question the traditional definition and role of competitors; customers; suppliers; and distributors (cf Frankelius, 1997).

In the redefinition of old conceptions such as “the environment” and “the industry”, there is a need for a “context identification activity”. In this the model of three structural dimensions is helpful. Contexts, defined as clusters of infra-structures, relational structures and belief structures, can lead to new and perhaps surprising views of reality. Infra-structures are the traditional way of defining contexts and are thus used often in the literature (cf Porter, 1980). Relational structures are a further basis for the identification of contexts. The separation between primary and secondary networks (Pettigrew and Whipp, 1991) or overembedded and underembedded networks (Uzzi, 1997), indicate methods of defining relationships in a systematic way. Finally the identification of cognitive communities (Meindl et al, 1996) focuses on shared belief structures as a basis for contextualisation.

As a result of this identification of contexts the idea of contextual management reaches beyond the immediate business world. As stated in chapter two, individuals take part in several, often rather unrelated contexts. Analysing individuals' situation their contextual belonging is thus a way of understanding how and why they think and act as they do.

One result of this context determination is the identification of blind spots. In section 9.2 blind spots were defined as the uneven distribution of inertia in the three structural dimensions. Business opportunities may arise via technology transferred from one context to another (infrastructural change), a change in relationship patterns (relational structures change) or the development of perhaps new insights as a result of impulses from unrelated contexts or reflective

---

294 As discussed in chapter two and three the concept of “industry” even though used in this study is given a new, more “contextual content” (Homogenisation in three structural dimensions).
thinking (belief structures change).

Contextual management further implies that the opportunities available to mobilise resources in order to increase action capability are more than those traditionally used. For example, the contextual perspective implies that management, identifying important contexts, can develop more relevant information flows as well as more relevance in present information flows. (cf Miles R. E. and Snow, 1978, "extra systemic information").

The trade association is one way of enlarging both information flows and resources as the management of the individual company can use the trade association to pursue its own interests. Taking the view of Pfeffer and Salancik (1978) trade associations are means of exercising power. If the company takes the lead in these processes it can use the association to pursue its own aims.

In identifying contexts, the analysis of internal processes requires issue identification. A step-wise analysis of issues, labelling and solutions demands a thorough examination of both present processes as well as historical surveys. Two factors stand out as decisive when pursuing the analysis of issues. The first factor follows the quest for the reflective top executive (Schön, 1983).

"From the perspective of Technical Rationality, professional practice is a process of problem solving. Problems of choice of decision are solved through the selection from available means, of the best suited to established ends. But with the emphasis on problem solving, we ignore problem setting, the process by which we define the decisions to be made, the ends to be achieved, the means which may be chosen. In real world practice, problems do not present themselves to the practitioners as given...." (Schön, 1983:39ff)

295 Compare the view of Czarniawska (1994) and Sévon (1996) on trade associations as "superpersons", discussed in chapter 2. Meyer (1994) elaborates on the view of the organisation in which other organisations are members. He claims that these organisations partly pursue the interest of some (or at best all) member organisations. However, he also makes a strong argument for these organisations as producers of regulations and standards to be followed by all members, i.e. they grow to become a part of the industry governance system. This view together with the findings in chapter five stresses the importance of trade associations in studies of industry change and further underlines the importance of taking these organisation into account when applying contextual management.
Using the theoretical framework applied in this study a climate must be created in which consideration can be given to how and why certain issues appear in contextual debates, why issues are labelled as they are, and why some solutions are related to specific issues. On a more fundamental level, the distinction between situational beliefs and more institutional beliefs is a means of examining the long-term development trends in the industry, as this is one way of observing institutional beliefs at work. Using the analytical distinction between infra-, relational and belief structures, insights into conditions affecting industry development throughout a longer period of time can be made. That is, the company applying contextual management develops the ability to analyse not only the problem or issue in itself, but also the conditions that make this problem or issue so important at that time.

This can perhaps be regarded "easier said than done". Hosking and Morley (1991), offers an idea of how proceed while emphasising the contextual relevance of experts in a similar way as this study uses the term "industry experts". Pursuing this relative view of expertise, contextual managers can be helped by contextual experts, i.e. the contextual historians. In the P&P industry names such as Bertil Haslum (SCA), Torsten Gårdlund (MoDo) and Sven Rydberg (STORA) are well known. These authors, intimately acquainted with the development of the industry, act as the “historians of the industry”, having spent decades studying and/or working within the industry. As a result they have a deep knowledge of company history, and most of them, the history and development of the entire industry. Following Ebert and Wehrell (1984) it can be argued that the contextual manager, when analysing an industrial context should pay great attention to its historians and listen to individuals who are aware of

---

296 Following Weick (1979) and Mintzberg, (1973) reflection in this context is not the same as "thinking without being disturbed". The reflective manager is the one that even though thinking actingly, is able to analyse and connect patterns of change in depth.

297 Ebert and Wehrell (1984) also suggest that historians should to be employed by the companies and as such act as a "living memory". Although developing unintentionally, this has often been the case in the pulp and paper industry.
the "contextual saga" (Clark, 1972). Furthermore the application of this analytical framework is of help as the contextual manager is able to classify issues in regard to their importance. As issues are identified and related to the analysis of situational and institutional beliefs, a pattern of issues with frame breaking qualities emerges. Issues comprising those qualities relevant to change projects, can be separated from those which will probably only reproduce the present. Of vital importance when making this judgement is the contextualisation of issue relevance. An issue identified in the company context can be of vital importance for the industry context and vice versa.

Moreover the analyses of issue sponsors and how issues are related to other issues, provide further evidence of relevance when evaluating the importance of any issue (cf Dutton, 1988). As top executives are under pressure to instigate change their ability to define and identify issues in which they could gain an advantage over their competitors is of great importance. The second ability emphasised in contextual management entails the political skills needed to define the issues. These political skills are of great determinative influence in how issues, labels and solutions evolve. Companies are able to develop strategies and policies that can be used to influence the issues, labels and solutions appearing within the industry context. The development of these political skills results in an approach that emphasises stretching. The intensive contacts existing between the P&P industry and the government throughout many decades represents a sort of "information barter", in which the aim is to influence issues and issue interpretations on the societal level. The point is here, that "active industrial politicians " by their actions are able to increase their level of action capability both with regard to authorities, their industry competitors, as well as other contexts of potential relevance. Thus,

298 The reader may now ask why these individuals are not included as interviewees in the present study. The reason is simply the aim of reconstructing the history of the pulp and paper industry with the help of time specific information. As described in the methodological chapter interviews with experts, in regard to this study, were avoided until the last stage - in which interviews were used to confirm and develop issues already identified. The contextual manager - judging the trustworthiness of his conclusion by himself may more freely exploit the short-cut here suggested.
lobbying (understood as influencing) occurs both between companies as well as in company-government relations.

Finally, the internal applicability of the political aspect must be stressed. Mentioned in the theoretical framework and surfacing especially in the vignette that describes the Forest Owners' Association’s entrance in the industry, was the use of societal and industry wide issues as a means of mobilising internal support for strategic actions. Thus referral to the industry context can be used as a way to manipulate processes within the company. This is another way of gaining a leverage effect from contextual management.

In conclusion the following figure depicts a top executive applying contextual management. Compared to the executive in figure 9.1 this takes a more relative and analytical view of societal processes. Identifying contexts and context specific issues (in agendas) he is able to structure reality in new forms.

**Figure 9.2. Analysing contexts**

9.4 Future research

In this research project many research ideas offering interesting and important angles have had to be rejected. Other research ideas have
emerged as a consequence of the results of this project. In this section a number of possible questions for future research are included, based on both theoretical and empirical issues, which are of direct relevance to the theoretical framework discussed here.

**The interaction between companies and the industrial wisdom.**

Strategy formation processes in individual companies influences the industrial wisdom in two ways. The ongoing debate is nourished by the arguments and justifications used in relation to strategic actions. This may lead to changes in situational beliefs and, eventually to changes in institutional beliefs when outcomes of actions have implications on the structural dimensions. i.e. two areas for further inquiries emerge from this discussion.

The first concerns the character of the process. Daft and Weick (1984) suggested that companies’ modes of information processing were stable over time. In this study, even though it has not been the central research issue, shifts in approaches are identified. To gain a further understanding of the interplay between organisations and the industry debate, further longitudinal studies must be of interest. Pursuing this line of research, perhaps the puzzling dilemma of industry leadership can be solved. As noted in chapter eight, there is no connection between companies active in the industry debate and their adoption of an adaptive approach when justifying organisational actions. It could be assumed that companies striving for industry leadership and thus active in the industry debate are forced to follow normative implications emerging from this debate when justifying their company specific actions.

Secondly, the relationship between the dimension of action and the dimension of argumentation and justification is not fully developed in the present framework. Further inquiries into these relationships, as well as the concepts of resource and action capability, are needed in order to increase the understanding of the connection between actions and rhetoric in organisations.

**Comparative studies**

This study focuses on one industry. The aim was, however, to develop a theoretical language which would enable conclusions to be drawn
transferable to similar settings. To facilitate this transferal process there is without doubt a need for more empirical studies. Two ways of proceeding comes to mind. The first is to carry out a study of other industries in Sweden for a comparative analyses of the degree of industry specificity in industrial wisdom.

A second way is to conduct comparative studies of P&P industries in other countries. One result proposed in this study is that the Swedish P&P industry have often used the North American industry as a role model. An interesting research question is thus in what respect the industry in for instance Britain, Germany and France has a similar industrial wisdom?

**The changing geographical context**

The empirical case ends in 1990 and thus, the implications of the deep changes emerging during the 1980’s are not included. One question resulting from the increasing internationalisation in this decade is the future of country-based industries. At the same time as organised cooperation within the Swedish P&P industry became of less importance in the 1980’s, the EEC based industry associations gained ground. Is this a restructuring of industry borders and the regionalisation of the industry? If so, what role do trade associations and other industry-wide organisations have in the future multinational context?

**The reproduction of industrial wisdom**

Focusing on the reproduction of industrial wisdom the relational structures are of specific interest. The industry-wide arrangements such as trade associations and joint research organisations are of specific interest. The methodological choice of identifying issues through the study of minutes from board meetings in trade associations emerged from the acknowledged role of these organisations (Pfeffer and Salancik, 1978; Meyer, 1994; Ahrne, 1994).

---

299 Jörgensen and Lilja (1991) and Eriksson et al (1996) serve as examples of comparative studies which can be built on. Petersson C. (1996) represents one of the few studies that combine a comparative focus with a longitudinal methodology. Neither of these however, combine a longitudinal methodology, comparative focus and time relevant data, e.g. speeches, minutes from board meetings and articles written by industry experts.
However, there is still a lack of empirical research on other actors in the reproduction process.

Groups not examined in detail are owners and consultants. Owners studied by Forsgren and Kinch (1970) and Glete (1994) must be regarded as an influential communication link between companies. Among consultants, Jaakko Pöryry is outstanding in its size. This global company, established in 1959 in Finland, is active in engineering, forecasting, and management consulting. The role of this company as an “industry memory“, constructing and maintaining large data bases of information about the industry development can not be underestimated (Sundblad L. G. 1995) but should be further studied (for interesting attempts see Eerola, 1989;1995).

So, studies of organisations having their prime role as reproducers of industrial wisdom, are of interest. A study of industry-based consultant firms (in several industries) would be a way to increase the understanding of how issues, labels and solutions permeate from company to company and country to country - that is, how industrial wisdom is reproduced300.

**Contextual change and acquisition waves**

A major change appearing in the 1980’s was an acquisition wave, first in Sweden, and later, on a European basis. The study of contextual change and acquisition waves would, without doubt, be an interesting line of research to pursue in the future.

Studying acquisition waves in several US industries, Thornton (1995) argues that acquisition waves are best understood as a combination of a “global level business culture“ and local strategies developing within specific organisational fields. She suggests that the conditions for a "bandwagon effect“ are high in industries that are characterised by a stage of high evolution, dominant firms and high interfirm dependency, all of interest in the present study. An internationalisation development took place in the P&P industry within Western Europe, when mainly Swedish and Finnish P&P companies led the wave of acquisitions and investments. Questions and ideas for further research concerning these acquisition waves can be added to the list.

---

300 A few studies are found that, in part, are following this line of reasoning. Czarniawska-Jorges, (1988) and Rövik (1992) however focus on the public sector.
Furthermore the concept of the "bandwagon effect" is of interest when related to the increased freedom of action shown in this study. If we review the actions undertaken by actors in the industry, these followed the same pattern where the internationalisation included almost all companies controlling the resources needed. The result is that the concept of increased freedom of action must be further considered.

**Development optimism?**

One interesting way to understand the existence of bandwagon effects are to focus on the climate in which deep changes take place. Dahmén (1988) differentiates between transformation processes in industries that are dominated by optimism and those dominated by a necessity to adjust or adapt. The first type of process obviously creates a positive transformation process in which new opportunities are identified. The second type of transformation process is a negative process characterised by a struggle between the “old“ and the “new“. Reviewing both the 1950’s and the 1980’s, the P&P industry’s deep changes are easy to classify as pessimistic. The companies saw themselves as being forced to invest in the production of paper as competition increased at the end of the 1950’s. The Swedish economic policy of the 1980’s made investments abroad almost compulsory.

However, if we also look at the financial resources existing in both periods and the optimism about future growth in core products, the division between optimistic and pessimistic transformation processes is difficult to sustain. Dahmen (1988, 1996) focuses on technological changes (i.e. the infrastructural dimension). In this perspective, optimistic transformation processes are often combined with technological breakthroughs.

An other interesting field for further investigation is the analysis of technological breakthroughs and the rhetoric used in the transformation processes. What are the implications of the breakthrough? The economic causalities? The future prospects of assumed prosperity? What obvious solutions indicating how to proceed? In this respect the labelling of radical technological changes, as offering opportunities or threats, can be a way to understand how individual companies survive and prosper in spite of overall industry decline.
A

Abenius, 104; 122; 124; 143; 154
Ahlgren, 237; 240
Andersson, 197
Andreason, 167
Andrén, 200
Anstrin, 89; 126
Antoine H., 127

B

Bahrke, 191; 195; 209
Berg, 113; 114
Bergek, 141
Berggren, 231; 232; 242; 246; 248
Björklund, 85
Boseaus, 89
Brandinger, 247; 248
Browaldh, 127
Brändström, 210; 211

C

Carlgren, 173; 177; 194; 197; 204; 208; 209; 230
Clemenson, 85
Croon, 204; 227

D

Danielsson, 104; 124; 125

E

Eckerberg, 234
Edström, 120; 121; 159; 189
Eklund, 134; 222
Elvander, 101
Enström, 104; 119; 122; 124; 125; 155
Enström, 109
Eriksson, 110

F

Fagerlind, 182
Fahlgren, 200
Forsblad, 234; 238; 242

G

Gabrielsson, 160
Glete, 84
Gärdlund, 125

H

Hadenius, 99; 137; 168; 172; 222; 224
Hagberg, 116
Hagner, 153; 193; 198
Hall, 107
Hamilton, 121; 199
Hecksher, 102
Hedlund, 152; 156; 161
Heijne, 158
Hellström, 152; 193
Hörn, 126
Hörn, 127
Hindemark, 173; 204
Häggström, 153

J

Jerkeman, 197
Jordansson, 207
Josefsson, 243; 244

K

Kastrup, 109
Kempe C., 115
Kempe E., 120
Kempe E., 126
Kempe, C., 106; 126
Landberg, 102; 104; 107; 111; 144; 145; 178; 205
Landqvist, 181; 194; 200; 215; 216; 225
Larsson, 100
Lewin, 97; 98; 99; 100; 101; 137
Lindberg, 84
Line, 124
Lindström, 205
Lundberg, 98; 101; 166; 170; 200
Lundh, 119
Lundin, 240
Lybeck, 222
Lyberg, 124; 150; 152; 155; 156; 158; 193
Löf, 225; 235; 242; 248; 250
Löwegren, 89; 126
Löf, 226; 249
Malmros, 110
Martin-Löf, 84; 89; 121; 152
Melander, 84; 112
Molin, 137
Mossberg, 138; 151; 154; 156; 157; 159; 161; 173; 177; 189; 190; 208; 209; 213
Myhrman, 99; 100; 137; 166; 167; 168; 169; 170; 221; 222; 223
Myhrman, 166; 168
Månsson, 243
Nilsson, 122
Palme, 136; 166
Petersson C., 144
Petersson C., 84
Pettersson T., 121; 199
Pihlgren, 105; 108; 123; 140; 143; 151; 153; 156
Rausing G., 156
Rausing H., 126
Rausing R., 124; 126
Remröd, 232; 233
Reunanla, 152; 193
Rudin, 84
Rundh, 107
Rydberg, 84; 85; 87; 88; 107; 182
Rydholm, 149
Rydin, 185; 197; 202; 207; 209; 210; 214; 215; 230; 233; 234; 236; 242; 243; 245; 247
Rynell, 140
Sandelin, 136; 165; 170
Sandels, 111
Schotte, 211; 212; 214
Severin, 118
Sjunnesson, 103; 111; 123; 124; 138; 140; 177; 191; 192; 199; 208; 210; 212; 213
Sköld, 156; 190
Söderstam, 155
Sprängare, 225; 228
Steenberg, 113
Stockman, 153
Streyffert, 113; 116; 119; 123; 141
Stridsberg, 86; 89; 121; 152
Sundberg, 198
Sundblad E., 154; 158
Sundblad E., 165; 186
Sundblad E., 153; 156; 160; 173; 182; 187; 189; 197; 201; 208; 213; 214; 215; 228; 235; 243
Sundblad G., 109; 114; 117; 122; 139
Sundblad L. G., 202; 211; 226
Sundblad L. G., 210
Sundblad G., 113
Sundblad, L. G., 211
Sundin, 89
Svennilson, 98
Swan, 205
Swedenborg, 224
Sydow, 102; 104; 123; 140; 143; 157