

# Chapter Three

## Methodological Discussion

In order to achieve a broad grasp of the research issues, several research approaches are used in this dissertation. Section 3.1 covers methodological issues that pertain to the overall dissertation, that is it gives a structure to the empirical and analysis parts of the dissertation. Different methodological issues arise in carrying out the empirical studies and the analysis of these studies. Section 3.2 pertains to the three empirical studies, while Section 3.3 covers methodological issues that are related to the analysis phase of the dissertation.

### 3.1. Overall Methodological Issues

The discussion of overall methodological issues in this section includes the structure of the dissertation (Section 3.1.1), as well as the ontological and epistemological bases (Section 3.1.2). In addition, sampling from a multinational population, and other issues arising in comparative international research, are covered here (Section 3.1.3).

#### 3.1.1. An Eclectic Research Approach

The structure of the dissertation is presented here, since a diversity of approaches are used. Multiple approaches are used on the following dimensions:

- Methods, including both those applying to the empirical studies, and those applying to the analysis.
- Methodology.
- Research issues focused on. As shown in Section 1.3, a model is used that allows for several more precise operationalizations.

Consequently, on an overall level, the dissertation is based on an eclectic research approach. The primary objective for such an approach is to attain a broad picture of the research issues. There are some underlying assumptions behind using an eclectic approach. First, it is assumed that different types of knowledge can be gained by using different approaches, and therefore it is possible to more fully understand a concept if it is studied from different viewpoints. Second, there is the assumption that individual researchers are

not bound by specific paradigms, but are free to choose from a variety of research approaches. A secondary objective with using an eclectic approach is to gain insight into the usefulness of such an approach.

The distinction made between method and methodology in the listing follows Silverman (1993, p. 2). Method is a specific technique applied in research, while methodology is a general approach.

Three separate research methods are used in the empirical part of the dissertation. They are interviews, report studies, and statistical studies, and are discussed further in Section 3.2. Methods can also be related to the entire research process, including both the empirical and analysis parts. As noted in Section 2.1, prior literature suggest three separate ways in which the relevance of accounting on stock markets can be studied. They are directly asking actors whether there is an impact, looking for indirect signs of an impact, and testing on theoretically derived constructs. The relationship between the empirical studies, and the latter group of methods is shown in Table 3.3.

In terms of methodology, two separate approaches are taken in the dissertation, which we can call “using pre-defined categories”, and “generating categories” (cf. mainstream and interpretative accounting research in Section 2.1). The methodologies are distinguished by the fact that categories are determined at different points in the research process. When pre-defined categories are used, the categories are defined before the analysis starts, and their definition normally also precedes the empirical study. When categories are generated, on the other hand, categories are defined at some point during the analysis phase. They should not be defined during or before the empirical study. Categories are used in a broad sense in this classification of methodologies, and they may be true categories, variables, or some other parameter.

Using pre-defined and generating categories is a rather specific and technical classification of methodologies. It can, however, easily be related to more general classifications in the social sciences, for example quantitative/qualitative, and objective/subjective. Silverman (1993, pp. 23-29) attempts to define the nature of qualitative (as distinguished from quantitative) research. One important aspect of qualitative research is that it tends to be unstructured, open, inductive, and focus on generating hypotheses rather than testing them. Kirk and Miller (1986, p. 17) claim that most quantitative research is focused on the testing of hypotheses. Thus, using pre-defined categories is similar to quantitative research, while generating categories better fits into qualitative research. The reason for not using quantitative/qualitative

to denote the methodologies used in the dissertation, is that they may falsely lead us to a belief that the distinction between the methodologies is based on whether numbers are used or not. This is not the case, as indicated below.

The classification of methodologies can also be related to the distinction between objective and subjective research, as shown by Burrell and Morgan (1979, pp. 2-6). These terms imply distinct methodologies, but also relate to diversity in terms of ontological and epistemological foundations. For that reason, the terms are not used in the dissertation. In the dissertation, the separate methodologies are applied using a relatively unitary ontological and epistemological base, as discussed below. A further problem with the objective/subjective dichotomy is, as pointed out by Popper (1959), that they “*are philosophical terms heavily burdened with a heritage of contradictory usages and of inconclusive and interminable discussions*” (p. 44).

Often the two methodologies have been seen as mutually exclusive, and competing. However, in this dissertation, the view is taken that they can be applied to obtain results on different aspects of the empirical material studied, and are therefore both useful. This leads to the use of an eclectic approach. Arguments for using such an approach can be found among scientific theory thinkers in the post-World War II period. This is shown, for example, in the following quote from Northrop:

*“Again we see the importance ... of emphasizing the different stages of scientific enquiry. We note also the importance of not supposing there is but one scientific method for all subject matters or for all stages of enquiry of a single subject matter. Scientific methods, like space and time, are relative.” (Northrop, 1959, p. 38)*

Popper (1959) states that studies that are subject to falsifiability are scientific (see for example pp. 40-41). Even though Popper himself appears to prefer the use of pre-defined categories when falsifying scientific statements (ibid., pp. 45-47), there is nothing inherently non-falsifiable with research that generates categories. Thus, falsifiability is not tied to any specific research methodology. Kuhn (1970, pp. 84-85, 159, 205-27) indicates that no research approach (paradigm) is inherently ‘better’ than another, but instead the approaches tend to be defended because of researchers’ vested interest in them. Toulmin (1981, p. 84) argues that different scientific theories (and viewpoints) can be used as long as they add to the understanding of the studied research issue.

The view that methodologies are relative can also be found in more recent social science work. Alvesson and Sköldberg (1994, pp. 10-11) point out that

the polarization and debate between the two methodologies is abating, due to the insight that the choice of methodology must be based on the specific research issue studied. In addition, for some research issues both methodologies are appropriate in combination. Hammersley (1992, p. 182) claims that doing research within only one single paradigm hinders progress in research. Within the field of accounting research, a similar argument is put forward by Jönsson and Macintosh (1997, pp. 368, 385).

Even though the classification of methodologies into using pre-defined categories and generating categories is not useful for an orthodox following of one or the other, the distinction *is* useful for the making of conscious choices on what research methodology to use (Alvesson and Sköldbberg, 1994, pp. 16-17; Watts and Zimmerman, 1986, pp. 9-10).

The main distinction between the two methodologies is whether the primary structuring efforts in the research process are performed before or after the analysis of the empirical material. This, in turn, is related to what level of analysis that is focused on. When pre-defined categories are used, the focus tends to be on more generalizable and high-level statements about the social world, that transcend individual actors (cf. Watts and Zimmerman, 1986, p. 11). This is because the pre-defined categories are likely to be derived from a theory, that is used for high-level prediction of human behavior. When categories are generated, on the other hand, the focus is likely to be on developing a theory based on the available empirical material. Thus, the specific actors studied are emphasized in this methodology.

In all research it is necessary to simplify our view of the world. The simplification may be done in two ways; through a focus on a small part of potentially relevant empirical material, or by using high-level simplified models of the larger empirical fields (Holme and Solvang, 1991, p. 36). The use of pre-defined categories is the focus of the latter type of simplification, i.e. simplifying models of high-level events. Sometimes, the models used are formalized, in which case well-defined concepts are needed *before* the empirical study is undertaken (Moore and Carling, 1982; Boden, 1994, pp. 3-4). Fielding and Fielding (1986, p. 21) talk about applying a standardized framework in analyzing different individuals. Thus, in this methodology, a structure tends to be applied to the empirical material, and this structure is developed before the empirical analysis begins.

Generating categories, on the other hand, is more geared towards simplification through selecting small parts of reality, as the methodology tends to primarily deal with understanding individuals. There is often more of an in-

volvement of the person(s) being studied (Silverman, 1993, p. 28; Boden, 1994, pp. 3-5). Fielding and Fielding (1986, p. 21) describe this as developing a framework based on each individual studied. Since formal modeling mostly is not applicable to this methodology, it may be better described as systematic rather than formal (Moore and Carling, 1982, pp. 163-164). Thus, in this methodology, structures are developed from the empirical material during the analysis phase.

A related issue is whether the focus is on a macro (institutional) or micro (individual) level (Holme and Solvang, 1991, pp. 35-36). Generally, when pre-defined categories are used, it is more relevant to focus research on an institutional rather than on an individual level. The micro level is of more interest when categories are being generated. Of course, there is interaction between the two levels, as discussed further in Section 3.3.

There may be substantial differences between the two methodologies in terms of the evaluation of reliability and validity. When using pre-defined categories, there tends to be a focus on 'controlled' situations, in the sense that the research situation is disconnected from the researcher (Silverman, 1993, p. 106)<sup>15</sup>. This is possible when the research process is guided by pre-existing theories or models, and it in turn facilitates generalizability. Relating to validity, there is often an emphasis on measurement issues, which are sometimes rather technical.

When categories are generated, there tends to be a more varied view on reliability and validity. It goes from statements that reliability and validity may not be relevant, to definitions that are similar to those used for research involving pre-defined categories. However, in general there is less focus on measurable generalizability, and more focus on a holistic understanding of studied individuals. A more precise discussion is included with the presentation of analysis methods used in the dissertation (Section 3.3.3).

The choices actually made in the dissertation on the methodological dimension are shown in Table 3.2 below. Additional discussion on how the two methodologies are applied in this study is included in Sections 3.2 and 3.3, and in Chapters Six through Nine.

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<sup>15</sup> The ideal setting when using this methodology would be a laboratory where the researcher has complete control of all factors. This is not possible in empirical social science research, so instead an attempt is made at controlling the factors that potentially are the most 'disturbing' in the research process.

How the three empirical studies are used in the four analysis approaches of this dissertation is described in Table 3.1. Table 3.2. shows whether the analysis approaches are based on the use of pre-defined categories or generating categories, or on both. Table 3.3 relates fundamental research approaches (as mentioned in Section 2.1) to the empirical studies, and to the analysis approaches.

	<u>Interviews</u>	<u>Report studies</u>	<u>Statistical studies</u>
Approach 1 (Chapter Six)	Used	Used	Not used
Approach 2 (Chapter Seven)	Not used	Not used	Used
Approach 3 (Chapter Eight)	Used	Used	Not used
Approach 4 (Chapter Nine)	Used	Used somewhat	Not used

The four analysis approaches indicated in Table 3.1, which represent different operationalizations of the research issues, are discussed in Section 1.3. As evident from Table 3.1, Approach 2 primarily involves the analysis of the statistical studies, while interviews and report studies are analyzed by applying the other three approaches.

Table 3.2 shows that both methodologies are applicable in some of the approaches, a fact which underscores the eclectic character of the dissertation.

	<u>Pre-Defined Categories</u>	<u>Generating Categories</u>
Approach 1 (Chapter Six)	Applied	Applied to some extent
Approach 2 (Chapter Seven)	Applied	Not applied
Approach 3 (Chapter Eight)	Applied	Applied
Approach 4 (Chapter Nine)	Not applied	Applied

<u>Fundamental research method</u>	<u>Empirical studies</u>	<u>Analysis approaches</u>
Directly asking actors what they think	Interviews	Approaches 1 and 3
Looking for indirect signs in actions or texts	Interviews and report studies	Approaches 3 and 4
Testing on theoretical constructs	Statistical studies	Approach 2

As indicated by Table 3.3 the empirical studies more or less represent three fundamental research methods. Directly asking actors what they think can be done through interviews or surveys, and in this dissertation the former method is used. Studying reports is analogous to looking for indirect signs of something, but this can also be done through the interview analysis.

Quantitative testing on theoretical constructs is exactly what is done in most statistical studies.

### 3.1.2. Ontology and Epistemology

Ontology is about the nature of the phenomena that are subjected to research study. Even though an eclectic approach is taken in the dissertation with regards to method and methodology, a unitary approach is taken regarding ontology. In the previous section, it was implied that the two methodologies applied in the dissertation (using pre-defined categories and generating categories) are related to two separate ontological bases, namely the objective and subjective as used by Burrell and Morgan (1979, pp. 2-6). Here, we are going to argue that it is possible to apply both methodologies with one unitary ontological approach.

Continuing with Burrell and Morgan, various ontological approaches can be discussed as they pertain to the concept of causality, that is on measurable relationships between variables (Russel, 1967, pp. 33-38). A four-point scale can be constructed as follows (inspired by Burrell and Morgan, 1979, pp. 23-35):

1. Total subjectivity, where everything is constructed by the researcher.
2. There is an objective world, but the aspect that is interesting to the researcher is how people studied construct meaning.
3. Relationships between variables are objectively measurable. These relationships are limited in time and space, however.
4. There are constant and measurable relationships between variables.

In social science, only the first three views are potentially relevant. Even though relationships can be measured, contextual limitations precludes such relationships to take the form of 'eternal truths' (cf. Goodman (1946) and Mackie (1965) for a more theoretical discussion of this issue). In natural science, on the other hand, model-specific relationships can often be seen as constant over time and space (Marc-Wogau, 1980, p. 48).

The view taken in this dissertation is close to the second and third views, that is the phenomena of interest are objectifiable social constructions. The fourth is not used, since this dissertation is in the social science field. The first is not used, since the whole reason for doing research can be questioned within this view (Russel, 1967, pp. 1-6, Burrell and Morgan, 1979, p. 239).

The phenomena studied in this dissertation are social structures. These structures are constructed by people, and only have meaning through people.

The fact that they are social, however, should be understood in the sense that they can be shared by people. Thus, the structures are objectifiable as defined by Popper (1959, p. 44), i.e. they are inter-subjective. A structure is not unique to one individual, but can have a similar meaning for many individuals, and may exist beyond the lifetime of any one person (cf. Giddens, 1979, p. 3). This type of inter-subjective structures are defined, for example, in the field of phenomenography (Marton and Booth, 1997, pp. 112-114) as people's conceptualizations.

A process of objectification of social structures is suggested by Berger and Luckman (1967, pp. 70-78). It is described as a process of institutionalization of habitualized action, which leads to social structures that transcend any of the individuals involved in their construction. Then, the structures<sup>16</sup> can be “*experienced as possessing a reality of their own, a reality that confronts the individual as an external and coercive fact*” (ibid., p. 76). At the same time, the duality of the concept of social structures must be remembered, in that such structures are not objective in the sense of a physical reality, as pointed out by the following quote:

*“It is important to keep in mind that the objectivity of the institutional world, however massive it may appear to the individual, is a humanly produced, constructed objectivity.” (ibid., p. 78)*

A few concrete examples of social structures relevant in this dissertation include concepts such as stock market, accounting, and value<sup>17</sup>. Like most economic concepts they are conceptual rather than physical, and their existence is impossible to imagine in a world without thinking minds (such as humans). Still, one can conceive that the meaning people confer to these concepts are somewhat shared, both cross-sectionally and over time. It should be noted that these concepts are high-level concepts, and that it is possible to ‘divide’ them into lower-level concepts. In such lower level concepts, one would expect an even larger extent of shared meaning. In addition, among professional experts (which are the actors focused on in this dissertation), the level of agreement is likely to be higher than it is among members of the general public.

Within the unitary ontological approach of studying objectifiable social structures, some differences can be noted between the various research meth-

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<sup>16</sup> What is called structures in this dissertation are defined as “institutions” by Berger and Luckman.

<sup>17</sup> Additional concrete examples of social structures are provided in the analysis chapter of the dissertation, that is Chapters Six through Nine. Those chapters also indicate how social structures can be used in research.

odologies and methods. When pre-defined categories are used, the relationship between a few well-defined concepts are studied. This is especially noticeable in the statistical studies, where the relation between, for example, accounting earnings and stock returns is studied, for a large population<sup>18</sup>. When categories are generated, the emphasis is on a diverse collection of social structures, and their relationships in a few selected individuals. This is especially true for the interviews, where a holistic understanding of how each individual understands and relates a group of concepts is possible.

This takes us to the issue of epistemology, that is what is considered to be knowledge, and how knowledge may be gained. The epistemology of the dissertation is implied in the methods and methodologies discussed in Section 3.1.1, and the aim of this Section 3.1.2 is rather to make the epistemology explicit.

The use of two separate methodologies in the dissertation suggests that knowledge can be gained in two ways. In using pre-defined categories, knowledge is gained by studying narrowly defined concepts and relationships, with relatively heavy use of deductively developed theoretical models or theories. Underlying this methodology is the view that knowledge is cumulative, in the sense that the present study can add something to the existing body of knowledge. In generating categories, on the other hand, knowledge is gained by the researcher attempting to conceive, and make explicit, a broader range of concepts and relationships in a smaller number of selected individuals.

The fact that three empirical studies are used in the dissertation suggests the view that knowledge can be gained from either interviews, the study of texts (reports), or statistical studies. In order to ascertain the logical consistency of combining the three methods in one dissertation, the following quote is useful:

*“Since institutions exist as external reality, the individual cannot understand them by introspection. He must ‘go out’ and learn about them, just as he must learn about nature. This remains true even though the social world, as a humanly produced reality, is potentially understandable in a way not possible in the case of the natural world.” (Berger and Luckman, 1967, p. 78)*

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<sup>18</sup>Although the sample selected is limited in time and space, it still includes a substantial number of individual instances.

The researcher can “go out” and find social structures, which is what makes statistical studies relevant. At the same time, these structures are humanly constructed, so interviews and text study may aid in the understanding of how such a construction is done.

It should be noted that just as objectified social structures are limited in time and space, the knowledge gained about such structures is also limited. Any results obtained in this dissertation cannot be held as ‘eternal truths’, but yet may still say something about the society of today, and the near past and future. In addition, results are likely to be limited in terms of geographic scope.

Also related to the study of social structure is the issue of additional meta-level structures created during the research process. An example of the occurrence of such an issue appears in the model presented in Figure 1.1, where senders, receivers, context and content are separated. As pointed out by Churchman (1971, p. 216), the people studied by researchers do not share the goal of understanding the world in the same way as the researchers, but are likely to be focused on other types of goals. Churchman’s conclusions may be applicable here as well. The model presented in Figure 1.1, provides a somewhat artificial portrayal of the underlying social structures that we are really interested in - a dilemma encountered in other research models as well. A problem that arises is whether the ‘artificial’ models are relevant for use in the empirical studies. There is no obvious answer to this question, but the application of three separate empirical research methods (interviews, report studies, and statistical studies) helps to ascertain the reasonableness of the research models used.

### 3.1.3. Comparative International Research

This dissertation has a multinational dimension, as shown by the research issues in Chapter One. This requires that a choice of which countries to include in the dissertation be made. In addition, the research issue indicates an international comparative aspect, since there is an attempt to explain variation in capital market impact through international accounting diversity. These two issues will be covered below, and there is also a discussion of how the comparative aspect of the dissertation relates to the three separate research methods used.

Four countries are included in the study: Sweden as a sender of accounting, and the United States, the United Kingdom, and Germany as receivers of accounting. Sweden is chosen because it is a small country with many large companies, that are dependent on foreign financing. Therefore, the Swedish

accounting system has had to grapple with the issue of international accounting diversity, and its effects on investors. Swedish accounting is also in the process of adapting to international requirements, and Sweden is therefore seen as a relevant case study for investigating the research issues.

The US and the UK are selected because they are, by far, the largest investors in Swedish equities. In addition, these two countries have a long history of financial markets, and have accounting systems that are focused on investors. The US accounting system also plays a dominant role in the global financial community. US GAAP is often seen as an international accounting standard. Germany is selected as representative of a continental European accounting tradition, and as a potentially large provider of capital in the future. Germany's accounting system is interesting, since it differs significantly from US and UK accounting. Within the European Union, for example, the UK and Germany are seen as two extremes in terms of accounting traditions, and by including both countries in the dissertation it is possible that more aspects of international accounting diversity are picked up (these issues are discussed further in Chapter Four).

Consequently, the senders of financial reports are Swedish companies. The receivers are investors and their advisors in the United States, the United Kingdom, and Germany.

The dissertation involves comparison of accounting in different countries. Przeworski and Teune (1970, Chapter 2) discuss the logic of sampling from a population located in more than one country (this is done in the interviews with analysts, and in the report study). Their discussion is applicable both to statistical and non-statistical<sup>19</sup> sampling. They describe two alternative approaches to sampling; most similar system and most different system. In the former approach, sampling is done separately within each country. Countries included should be as similar as possible, so that there are fewer potential explanatory variables for differences found. The approach requires an a priori assumption of which countries are similar, and it assumes the existence of differences in at least one variable, since differences between countries constitute the object of study according to this logic. The most different system, on the other hand, is based on sampling from the entire population, in which national boundaries are ignored. As a working hypothesis, the population is assumed to be totally homogenous. This assumption may be rejected in cross-country comparisons. The approach assumes that even

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<sup>19</sup> An example of non-statistical sampling would be theoretical sampling, as defined by Glaser and Strauss (1967, p. 45 ff.).

though countries differ substantially, individual selections will have similar characteristics.

The research described in this report is based on the most different system logic. A feature of this approach is that sampling starts at the lowest possible level (individual actors in the case of this dissertation), but that the level of analysis may vary depending on the empirical material (Przeworski and Teune, 1970, p. 36). For technical reasons, sampling is done by country, but it is the global population of relevant analysts that is interesting (Section 5.1). In Chapter Eight, the assumption in the research analysis is that there are no differences in analysts based on home country. However, Przeworski and Teune (ibid.) predict that this assumption may be abandoned when the researcher is confronted with empirical material, and this is what happens in Chapter Nine of this dissertation.

Øyen (1990) includes a general discussion of comparative social research. This type of research is described as the study of how the macro level affects the micro level. Further, comparative research is said to have a high level of complexity, since the comparative aspect involves an additional level of analysis. A few issues to consider in comparative research are the unit of analysis, cultural bias of the researcher, and terminology.

The unit of analysis can vary from groups of individuals to groups of countries or global regions. Countries are often used, but that is not always the most relevant choice. However, in international accounting research, countries tend to be a natural unit of analysis, since accounting systems are, to a large extent, legally defined by countries.

Researchers tend to have biases, stemming from the culture in which the researcher resides. This is especially obvious when other cultures are studied. This issue may be overcome by the researcher attempting to make the cultural bias explicit. However, a related issue still remains, and it is the question of what point of view to take when comparing countries.

The related issue is implied by Agar<sup>20</sup> (1986, p. 12), who says: “*Ethnographers set out to show how social action in one world makes sense from the point of view of another.*” Thus, research done based on a certain cultural bias, makes sense for people from that culture. In addition, such research facilitates comparison, in that a common framework is applied to all studied cases. On the other hand, if a rich description of each country is de-

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<sup>20</sup> Agar is an ethnographer, so the quote given is about the field of ethnography. From a methodological viewpoint ethnography is of interest in this dissertation, since it deals with the study of different societal cultures.

sired, the cultural bias is a negative factor. Rich country descriptions make it harder to compare countries, since the framework differs between the countries. It is an issue in all comparative studies to what extent a common framework should be used. At one extreme, each country is studied from its own logic, which basically leads to parallel country studies rather than truly comparative studies. On the other extreme, all countries are studied according to one common framework. This facilitates comparison, but the internal logic of each country's accounting system may be lost in the analysis. In this dissertation, it could be said that the analysis in Chapters Six through Eight leans towards a common framework, while Chapter Nine leans towards treating each country as a special case.

A third issue is that terminology may differ between countries. The same word may refer to different things in different settings. Therefore, it cannot be assumed that if people in different countries use the same word, they actually want to convey the same meaning. This is related to the discussion in the previous paragraph, on the difficulties of combining standardization and rich cultural descriptions. This issue is addressed by using the methodology of generating categories, as is done in Section 8.2 and Chapter Nine.

The final issue to be covered in this section is the justification for the inclusion of three separate methods or empirical studies. The three methods are, as noted earlier, interviews, report studies, and statistical studies. Interviews with individual stock market actors are used in order to gain an understanding of the effects of international accounting differences on such actors. Interviews were selected as a method in order to enable a certain openness in the research, as suggested by, for example, Brunsson (1976). The same method was chosen, for instance, by Choi and Levich (1990), and by Day (1986), in studies with similar research issues as this dissertation has. In addition, interviews enable a deeper understanding of individual interviewees. Thus, the goal of an eclectic approach may be attained.

To corroborate and/or further enhance interview results, reports were studied. Company annual reports are analyzed in Chapter Six. Analysts' reports constitute the end product of a detailed analysis of annual reports, and they are analyzed in Chapters Eight and Nine.

In the relationship between sender and content, the focus is on differences in accounting (content) by Swedish companies (sender). The recent harmonization of Swedish accounting provides an opportunity to study the possible effects of this change. The Swedish harmonization is done with the intention of adapting to the needs of international capital markets. Thus, Swedish ac-

counting can be expected to, over time, become more useful for capital market users.

When comparing capital market effects of different accounting frameworks, there are statistical methods available. These methods are especially suitable when the two separate accounting frameworks exist within one single capital market, as is the case here. One such method was chosen, see Section 3.2.3. An additional benefit of choosing a statistical method is that it is likely to provide insights that differ from those provided by the interviews and text (report) studies (cf. Section 10.3).

## 3.2. Empirical Studies

Issues relating to the carrying out of each of the empirical studies (that is studies according to three methods) are covered below in three separate sections. The studies are interviews (Section 3.2.1), report studies (Section 3.2.2), and statistical studies (Section 3.2.3). The analysis of the empirical studies is not covered here, but is instead discussed in Section 3.3. Note also that a more technical description of the studies is provided in Chapter Five.

### 3.2.1. Interviews

Before discussing interview methods, it should be noted that three different interview sub-studies were carried out. First, there are interviews with non-Swedish financial analysts (receivers of accounting information), and they are analyzed in Chapters Eight and Nine. Second, an interview study was conducted with Swedish company representatives (senders of accounting information), and this is analyzed in Chapter Six. Third, interviews were carried out with various non-Swedish capital market participants, including portfolio managers, stock brokers, and analysts that were not included in the first study. These interviews were used as background to the first study, i.e. to provide an initial overview of the empirical field to be studied. However, where relevant, they may be referred to in the context or analysis chapters (Chapters Four, and Six through Nine). From here on, the three interview studies will be referred to as follows:

- The first study is referred to as ‘the primary receiver study’.
- The second is ‘the sender study’.
- The third study is ‘the secondary receiver study’.

Four areas are covered in the methodological discussion on interviews. These are the purpose of using interviews, selection of interviewees, development of the interview questionnaire, and structure of the interview situation.

As noted in Section 3.1.1, the empirical material in the dissertation is analyzed both according to pre-defined categories, and by generating categories. The purpose of interviews differs somewhat between these two methodologies. When pre-defined categories are used, interview protocols are used in order to find answers to well-structured questions. Then, the focus tends to be on the attainment of knowledge about higher-level structures, rather than on each individual interviewed. When categories are generated, on the other hand, interviews are used to develop structures for how interviewees think, which makes each individual interviewee interesting per se.

The first delimitation of interviewees for selection is based on national location. Where a country selection is necessary (as in the interview studies), three countries are included as receivers of accounting (United States, United Kingdom, and Germany), and one country as a sender of accounting (Sweden).

In the primary receiver study, financial analysts were chosen as interview objects. A few assumptions form the basis for this choice. First, analysts are assumed to be a relevant proxy for the general stock market. The more important empirical issue is the impact of accounting differences on investing *action*, rather than on the advice given to investors (by analysts). However, the action and the advice are assumed to be correlated. Second, analysts are assumed to be important users of annual reports, that is accounting information is assumed to be one of the sources of information entering equity analysis.

The assumption that analysts constitute a proxy for the wider market is supported by Francis and Soffer (1997). They showed that analysts' reports do have an impact on stock prices. Abdel-khalik and Ajinkya (1982) showed that analysts have an information advantage over other market participants. Thus, analysts' reports can be expected to be used by rational investors who wish to increase their expected investment returns.

The assumption that analysts use annual reports is supported by Arnold et al (1984). They found that fundamental analysis<sup>21</sup> is by far the most common analysis approach for both US and UK analysts. Annual reports can be ex-

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<sup>21</sup> Fundamental analysis is the analysis approach where many different information sources are used to evaluate the 'fundamental value' of a company. One such source of information is likely to be accounting. This should be compared to alternative analysis approaches, such as technical (where only historic stock prices are used), and quantitative (where statistical models are used). One can assume that, out of these three analysis approaches, fundamental analysis involves the most ample use of accounting information.

pected to be a source of information in fundamental analysis, while it would not be in technical or quantitative analysis.

In the sender study, potential interviewees include people in Swedish companies, who interact with accounting receivers either directly or through accounting reports. The potential population meeting these criteria includes those responsible for external financial reporting, and for investor relations.

In the secondary receiver study the aim is to obtain an overview of the financial service sector that is receiving Swedish accounting. Thus, the criteria for selecting interviewees is that they work in the financial service sectors, specifically in the stock investment part, that they are located outside Sweden, and that there is diversity in interviewees. Potential interviewees are, for example, financial analysts, portfolio managers, and stock brokers.

When discussing methodological considerations in interviewee selection the secondary receiver study is not considered, since the aim of that study is not to be useful in the analysis, but rather to help in the pre-understanding behind the dissertation. In the primary receiver study, the potential population of interviewees consists of financial analysts in the US, UK, and Germany, while in the sender study the potential population consists of heads of accounting and investor relations in listed Swedish companies. Methodological considerations in selecting interviewees from these populations are related to whether the analysis is based on using pre-defined categories or on generating categories.

An important consideration when pre-defined categories are used is often whether the selection is random, in which case results may be generalizable. In the sender study, the selection is not random, but rather based on company size. In the primary receiver study an initially random selection is faced with two potential problems. First, the response rate is relatively low (approximately 26%), and we have no method of analyzing whether the interviewees that chose to participate are different from those that did not<sup>22</sup>. Second, the population to select a sample from may not be homogenous in the sense that one cannot make a discrete categorization into analysts that follow Swedish companies, and those that do not. Rather, the involvement of analysts with Swedish companies may be better described by a continuous scale. If that is the case, the relevant population will vary with its precise definition. We may have selected the analysts that are most involved with Swedish companies, and if they constitute the relevant population, the actual response rate

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<sup>22</sup> The actual selection of interviewees is discussed in Section 5.1.

is higher than 26%. Thus, it is possible that the level of generalizability is understated by the 26% number.

In generating categories, the information content of interviews is often increased if interviewees with different characteristics are selected (Holme and Solvang, 1991). In the primary receiver study, differentiation is insured by the different nationalities of interviewees. This is augmented by the selection of interviewees from both large and small firms. An alternative approach would be to make selections that are as similar as possible, i.e. attempt to control as many variables as possible. That is not used here, since the expected results of the study cannot be specified clearly enough in advance. Similar selections require that it is known in advance which variable should fluctuate. In the sender study interviewees selected represent companies from different industries. However, only large companies are represented, due to the fact that they are the only ones who directly deal with foreign receivers of accounting.

Whether categories are pre-defined or being generated, usefulness of interviews is increased when interviewees are knowledgeable about the issues studied (Holme and Solvang, 1991), since that increases the ability of the subject to convey well-structured and deliberate answers. Thus, in this case, the population to select from should be individuals that are already involved in investments in Swedish companies. These individuals are assumed to have a well-developed idea of Swedish accounting that can be readily communicated.

In summary, the actual selection of interviewees is such that the interviews should be useful for both analysis approaches. The fact that the selection was intended to be generalizable in the sense required when pre-defined categories are used does not impede the generation of categories in this case.

The development of the questionnaires used in the primary receiver study (Figure 3.1), and in the sender study (Figure 3.2), is based on several factors. First, it is based on what type of study is conducted. Second, the content of the questionnaire is based on the research issue, prior research, and the secondary receiver study.

A variety of methods have been used to study analysts (as in the primary receiver study). Examples include interviews with various levels of structure (Biggs, 1984; Choi and Levich, 1990), content analysis of analysts' reports (Govindarajan, 1980; Previts et al, 1994), questionnaires (Arnold et al, 1984;

Olbert, 1991), and statistical capital market studies (Francis and Soffer, 1997).

Below is the questionnaire used for the New York interviews. The questionnaires used in the London and Frankfurt interviews were substantially the same, with only minor adjustments.

1. How important is financial statements information in relation to other information? Are the financial statements used in the analysis?
2. Which numbers from the Swedish annual report are actually used in the analysis (from I/S, B/S, SCF<sup>23</sup>, footnotes, any other information in annual report). Special consideration is given to the use of the US GAAP footnote (if it exists). Parent company F/S? Form 20-F?
3. How are these numbers used? Are they going into some kind of model or analysis tool, resulting in a projection (of earnings)?
4. Is the same analysis method used for Swedish and US companies (and companies from other countries)? Are there any adjustments made for differences in financial reporting?
5. Is the US GAAP information helpful; Is it helpful that the company refers to IAS?
6. Anything missing in the Swedish F/S?
7. Differences in audit report relevant?
8. For how long have you followed the Swedish company/industry? Has the company's accounting changed over time?
9. Can you give examples of other companies you follow? Which industries and countries are they in?
10. Is it possible to have a copy of your latest report on the company, or industry report where the company is included?
11. Do you find international financial reporting diversity to be a problem? Would international harmonization be advantageous?
12. Is there anything in these financial statements that you find problematic? Did you have any accounting questions for this company's investor relation department?
13. What is the timing of the accounting information like? Is the speed of information important? Is it received electronically first, and then paper copy of annual report? Which is used for actual analysis? How do you obtain accounting information on the company?
14. Why is this Swedish company interesting to look at? Why did you decide to follow it?
15. How is the analysis affected by macro-economic factors, such as currencies, interest-rate differences, the economy of Sweden, etc.? I am interested in factors that affect Swedish companies, but not US companies. International diversification, is it a positive factor?

**Figure 3.1:** Questionnaire used in the primary receiver study.

The method chosen in this dissertation may be characterized as open-ended interviews (Silverman, 1993). This classification is based on the fact that the questions do not have pre-set answers to choose from. As Silverman points out, however, this does not preclude a focus on macro variables, or a quantification of the results. In the analysis based on pre-defined categories, an understanding of how analysts think is a means for gaining knowledge of how accounting information is used on a higher level. Thus, the focus of the study is on macro variables (stock markets), not on micro structure (individual analysts).

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<sup>23</sup> Acronyms are used in the questionnaire. I/S = Income Statement, B/S = Balance Sheet, SCF = Statement of Cash Flows, and F/S = Financial Statements.

The questionnaire is developed so as to allow both the use of pre-defined categories, and the generation of categories in the analysis. Thus, the questions are intended to be specific enough for the first type of analysis (done in Section 8.1, and partly in Chapter Six). A similar method was used by Day (1986) in interviews with analysts. She applied a pre-defined framework to a relatively open interview situation. Here, the interviews should also be open enough to allow for the generation of categories (done in Section 8.2 and in Chapter Nine, and partly in Chapter Six).

Below are examples of questions asked to Swedish company representatives. The examples below are translated into English from Swedish. During the actual interviews different questions were focused on for heads of accounting and investor relations, respectively.

1. How is your department organized, and what is your position?
2. What does international accounting diversity mean to you?
3. What are the most important differences between accounting in Sweden and other countries?
4. Is international accounting diversity a problem?
5. Would international accounting harmonization be beneficial?
6. Is there anything which is often misunderstood in Swedish accounting?
7. Are there any differences between investors from different countries, e.g. in terms of what types of questions they ask.
8. In what way does your company adapt its accounting to foreign users? Do you use US GAAP/IAS? Why or why not?
9. How much does the adaption of accounting cost, including indirect costs?
10. Does Swedish or international accounting give a fairer view of your company?
11. Who decides on your company's accounting policies?
12. Does your company have an explicit strategy for capital acquisition, especially with regards to foreign investors?
13. Does your company have an explicit strategy for investor relations, i.e. for communication with investors?
14. On what stock market is the price of your company's shares set?
15. Why is your company listed on foreign stock exchanges, and what are the effects of such listings?

**Figure 3.2:** Questionnaire used in the sender study.

Several of the questions included in the questionnaire may be directly related to the research issues in Section 1.1. For example, if accounting is to be useful on stock markets, financial statements should be used in the analysis. Some of the questions have to do directly with international accounting diversity. One of the research issues in Section 1.1 is about why there is an impact. The points on the questionnaire about how the analysis is done relate to this research issue.

Existing research literature also suggest some of the questions. The context of interviewees may be important in the analysis, and some questions have to do with that. The question on whether diversity is a problem, and on the desirability of accounting harmonization, may be tied directly to Choi and Levich (1990).

As noted above, a secondary receiver study was conducted with non-Swedish financial market actors. That study was used to develop the questionnaire discussed here. For example, it suggested the potential role of how accounting is transferred to receivers. It was also helpful in structuring questions on the context of analysts.

The actual interview situation was characterized by a certain openness, in the sense that interviewees were given the opportunity to expand on areas they themselves found important. At the same time, an attempt was made to cover all the questions included in the questionnaire.

Some potential problems can be identified with the research method chosen. First, validity may present problems in interview studies, both in the realization and in the analysis phase. Validity problems can be caused by a selection of interviewees irrelevant for the research issue, or by interviewees being unwilling or unable to convey information of interest.

On the relevance of interviewees selected, this study should be acceptable. The interviewees in the primary receiver study are actual advisors to investors into Sweden, while senders interviewed are actual senders of accounting to foreign receivers. Thus, any results could be expected to apply to the intended research issues.

A potential validity problem in all interviews is that the interviewees do not convey the 'real' story<sup>24</sup>. For example, if interviewees are under time pressure, they may prefer to give the researcher a 'clean' story rather than a 'messy' one, even though the messy one is what the researcher is really looking for, and therefore is the more interesting of the two. This is mitigated in this dissertation by a separate study of reports issued by analysts, and by a statistical study.

A similar issue is that interviewees may have tacit knowledge about how the analysis is done, but may be unable to make this knowledge explicit. This is especially an issue when pre-defined categories are used in the analysis, since one of the aims of generating categories is to locate tacit structures. Concerning the former methodology, Biggs (1984) found that the seven analysts included in his study had a highly structured approach to analysis, and that a majority reached similar results from the analysis. This study supports the

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<sup>24</sup> 'Real' story should be understood in terms of social structures as they are - explicitly or implicitly - used by the interviewee. Thus, no externally objectifiable reality is assumed by the use of the term 'real' story.

assumption that analysts have explicit knowledge of what they are doing. It also indicates a certain generalizability from a limited number of interviews (due to low variability, at least in terms of the end products from analysis).

Another potential problem in interview studies is the reliability of the study. An extra source of comfort of the reliability of the results is provided by the fact that both sides of the accounting communication process is studied, i.e. that both the primary receiver study and the sender study were done. Further, studies of analysts' reports, and statistical studies are performed.

Reliability may be decreased if the results are very specific to individuals (analysts) or companies (Swedish), i.e. if there is a high variation in the analysis. Note that even though Biggs (1984) found a low variability in end products of analysis, the information processing stage may still have a high variability.

In using pre-defined categories, several techniques can be used to increase validity and reliability of the study. The use of annual reports reduces the potential variability of the actual interview situation. During the interviews in the primary receiver study, the discussion centered around one specific Swedish company, and one specific annual report, with which the interviewees had prior experience. A few large Swedish companies were represented (ABB, AGA, Astra, Electrolux, Ericsson, Gambro, and Volvo). This gives some structure to the interviews, and can be related to the balancing the researcher has to perform between openness and adapting to pre-constructed models, which is often an issue in interview studies.

An expanded discussion of validity and reliability when generating categories in the analysis is included in Section 3.3.3.

### 3.2.2. Report Studies

Two separate report studies were done. First, analysts' reports on Swedish companies, produced by non-Swedish analysts, were studied. As with the interviews, the reports can be analyzed using both pre-defined categories and by generating categories. Only the latter methodology is applied to the analysts' report studies. Second, a study of company annual reports was done, and these are analyzed according to a combination of both methodologies (Chapter Six).

In the report studies, methodological considerations are relevant in the selection of reports as well as in the analysis. The former is discussed here, and the latter is covered in Section 3.3.

The selection of analysts' reports was made in two separate rounds. In the first round of selection, all reports on Swedish companies obtainable through the Investext<sup>25</sup> database were selected (see also Section 5.2). At a later stage, a sub-selection was made.

The issues involved in the selection of reports vary in the first and the second rounds. In the first the selection was not done by the researcher, but by Investext. Investext gives a sub-selection of all reports covering Swedish companies that are available in the world. An issue then is what type of bias there is in this selection. Since Investext includes reports from a majority of the large brokerage houses, any bias should be minimal. It could also be argued, that even if there was a bias, its effects would probably be small since the reports are only analyzed with the intent of generating categories.

The second round of selection may be based on, for example, the following criteria:

- An entirely random selection.
- Including reports issued by the analysts that are studied in the interviews.
- The length of the reports.

Since the primary objective of the report study is to expand and illuminate results from the interviews, the second selection criteria is most appropriate. The quantity of reports selected should be small enough to allow a thorough analysis of each report, and large enough to allow an extraction of results relevant to the research issue.

Company annual reports were also selected based on interviewees selection for the sender interview study. In that study, interviews were conducted with company representatives from five Swedish companies (see Section 5.1), and the annual reports from these companies were selected for the report study.

As a general point, many of the methodological issues discussed for the interviews in Section 3.2.1 are also relevant for the report studies, such as issues relating to generalizability, validity, and reliability.

### 3.2.3. Statistical Studies

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<sup>25</sup> Investext is an electronic database with fulltext versions of selected analysts' reports.

The focus in this section is on the choice of statistical methods and models used. Selection and collection of data included in the study is discussed in Section 5.3. The statistical studies in the dissertation are used to answer the second of the specific research issues as it is stated in Section 1.3, i.e. whether senders' choices on content affect the relevance of accounting for company valuation.

In the dissertation, Swedish companies are the senders, so the statistical studies will focus on effects from these companies' choices on content of the annual reports they produce. More specifically, capital market effects of the harmonization of Swedish accounting to international requirements are studied. This section starts with a discussion of some of the statistical methods available in the existing literature.

A significant amount of research has gone into the general study of the relationship between accounting earnings and stock market measures<sup>26</sup>. Ball and Brown (1968) conducted one of the first studies applying rigorous research methods in the field (see also Section 2.1).

A number of recent papers have focused on the relationship between accounting information and stock market returns in the field of capital market effects of international accounting diversity. Examples include Alford et al (1993), who compared the United States to 17 different countries, one of them being Sweden. Harris et al (1994) compared the United States and Germany. Joos and Lang (1994) conducted an intra-European study, by investigating effects of accounting differences in France, Germany, and the United Kingdom. A study of companies reporting under dual accounting frameworks was conducted by Amir et al (1993). Barth and Clinch (1996) studied capital market effects of reporting differences between the United Kingdom, Australia, and Canada, while Hall et al (1994) compared Japan and the United States.

There are different research methods that could be applied in this study. We are going to identify three different possibilities. First, there is the original Ball and Brown approach<sup>27</sup>, and its extensions. Second, there are event studies<sup>28</sup>. Third, there is an approach based on Easton and Harris (1991)<sup>29</sup>.

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<sup>26</sup> The most common stock market measure to be used in accounting research is returns, both adjusted and unadjusted for market indices. Apart from returns, trading volume is sometimes used as a measure. For both returns and volume, various window lengths have been used, with a range from less than one hour up to 10 years.

<sup>27</sup> Ball and Brown (1968) measure the association between unexpected accounting earnings and abnormal stock returns. Unexpected earnings are defined by a random walk model, with some adjustments, while abnormal return for a specific security is absolute return minus movements in the market index.

This dissertation uses the third approach, for a number of reasons. The most important of these is that Easton and Harris allows a direct comparison of returns, as reflected by the two systems of accounting and stock markets. This allows for a richer theoretical development of the usage of accounting on stock markets. The first and second approaches, on the other hand, measure the ability by investors to ‘beat’ the market index using accounting data. This is based on a very specific view of stock market accounting usage in the tradition of the EMH (efficient market hypothesis), i.e. where the market is seen as reacting to the supply of previously unknown information.

Two separate conceptual views can be taken on the study of associations between accounting earnings and stock returns. These can be called the information and the valuation perspective, and the two are discussed in Section 2.1. As noted in that section, both views may be applied to the statistical studies in this dissertation, and of the three research approaches, only Easton and Harris allows for this dual viewpoint.

There are also more technical advantages with the Easton and Harris approach. The Ball and Brown approach and event-studies are both focused on unexpected earnings, which is difficult to define or measure empirically. Both of these approaches also require measurement of abnormal returns, which could raise issues in the Swedish stock market. This is because the market index is dominated by a handful of companies. It is unclear what the effects on market-based accounting research are when the measure of abnormal returns (i.e. returns adjusted for the market index) could change significantly by including or removing one or two companies<sup>30</sup>. How do you measure abnormal returns for those two companies? A third issue that applies only to event-studies is that the timing of information dissemination must be known with an exactness that is more precise than the window used (usually a few days), which may be difficult to achieve in practice.

The Easton and Harris approach is normally based on 12 or 15-month windows<sup>31</sup>, and focuses on the association between absolute accounting and

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<sup>28</sup> Most event studies follow the Ball and Brown approach (that is they relate unexpected earnings and abnormal returns, but they have substantially shorter window-lengths. Ball and Brown used 18-month windows, while most event studies have windows of less than one week. See also Watts and Zimmerman, 1986, pp. 87-88.

<sup>29</sup> Easton and Harris use measures of absolute returns for both the dependent and independent variables. Thus, they measure the association of absolute accounting returns and absolute stock returns.

<sup>30</sup> Ericsson accounted for 15.3% and Astra for 12.1% of total market capitalization on the Stockholm Stock Exchange in December 1997 (Svenska Dagbladet, 1997).

<sup>31</sup> The windows either end at the balance sheet date, or three months after this date. The former windows are defined as 12-month windows here. The use of such windows is

stock returns. Thus, the three issues covered above are avoided. Easton and Harris (1991) show that accounting returns measured both through levels and changes in earnings are relevant for studying value relevance<sup>32</sup>. Ohlson and Shroff (1992) show analytically that in a setting of market efficiency, earnings levels will have a higher explanatory power than earnings changes. Earnings levels are not modeled at all in Ball and Brown (1968). It should be noted that this approach is consistent with theoretical work in Ohlson (1995) and Feltham and Ohlson (1995). Since Easton and Harris (1991) show that both levels and changes of earnings are significantly associated with stock returns a multivariate model from Easton and Harris is used, incorporating both items. The model is:

$$\frac{P_{jt} + d_{jt} - P_{jt-1}}{P_{jt-1}} = \alpha_{0t} + \alpha_{1t} \frac{A_{jt}}{P_{jt-1}} + \alpha_{2t} \frac{A_{jt} - A_{jt-1}}{P_{jt-1}} + \eta_{jt} \quad (1)$$

where:

$P_{jt}$  is price per share of firm j at time t.

$d_{jt}$  is dividends per share for firm j at time t.

$A_{jt}$  is accounting earnings per share for firm j at time t.

$\eta_{jt}$  is information affecting share price but not reflected in accounting earnings for firm j at time t.

Note that the model used here does not call for an intercept, but it is still included in order to allow for potential model misspecification. Further, using the model, we can define the concept of ‘value relevance’ of accounting earnings as the explanatory power of the independent variables on the dependent variable.

An additional test is performed to test for changes over time of Swedish summary accounting measures, including both earnings and owners' equity. The test is based on theoretical work in Ohlson (1995), who suggest that both earnings and owners' equity may be associated with stock prices. Thus, we can get a measure of whether value relevant information has shifted between the income statement and the balance sheet. We also get a test of whether the level of conservatism in the accounting numbers has changed. More conservative accounting should lead to larger coefficients for both earning and owners' equity

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consistent with the valuation perspective, since the periods for which accounting returns and stock returns are measured match. The latter windows are defined as 15-month windows, and they are consistent with the information perspective. This is because they encompass the time period when accounting earnings have become known to stock market actors.

<sup>32</sup> Value relevance is a term used to describe the accounting data in terms of the usefulness of this data for stock market receivers of accounting. Value relevance can be defined in different ways, as discussed later.

(Harris et al, 1994, p. 195). This is because in a conservative setting, \$1 of accrual earnings is worth more than \$1 of cash earnings. In parallel, the economic value of \$1 of owners' equity is more than \$1. The level of conservatism is also indicated in Section 5.3 by comparing ratios of market values and book values. The model used in this paper for empirical testing is based on a model in Harris et al (1994):

$$P_{jt} = \varphi_{0t} + \varphi_{1t}A_{jt} + \varphi_{2t}B_{jt} + \varepsilon_{jt} \quad (2)$$

where:

$B_{jt}$  is accounting owners' equity per share for firm j at time t.

It should be noted that the first model uses stock returns as an independent variable, while the second model uses stock price. Kothari and Zimmerman (1995) show that return and price models exhibit different types of econometric problems, and therefore suggest using both types of models in market-based accounting research (p. 183).

From here on, we will refer to the first model as the *return* model, and the second model as the *price* model.

Assumptions are made in this paper when using the above models, at least when the valuation perspective is taken rather than the information perspective. Market capitalization<sup>33</sup> is assumed to be a usable measure of economic value, which is exogenous to the accounting system. The term usable should be understood in the sense of a relevant measure for the actors that are studied in this dissertation, i.e. senders and receivers of accounting information on the stock market. In order for market capitalization to be usable as an evaluator of accounting numbers over time, the capitalization should be based on reasonably similar valuation criteria at different points in time. In other words, while accounting varies over time, stock market valuation is assumed to be constant.

The return model measures the association between stock returns and accounting earnings. In this framework, the higher the association, the higher the value relevance of earnings. This is based on the assumption of stock prices being a relevant reflection of value of firms, and thus stock returns reflecting changes in value. Thus, in the spirit of Hicks (1946), accounting earnings can be evaluated by being compared to this change in value.

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<sup>33</sup> If market capitalization (a stock variable) is a useful measure of value at any specific point in time, it follows by definition that stock returns (a flow variable) are useful for measuring changes in value.

An issue that arises is whether stock prices are relevant measures of value. Of course, by definition stock prices and returns are relevant for receivers (investors and analysts), since such prices and returns constitute the very items they are trying to forecast. In addition, senders (company representatives) are also directly affected by prices and returns. On the other hand, these actors could hold the opinion that stock prices are a poor measure of ‘fundamental’ value, since they are, for example, overly volatile. However, we are unlikely to find a better alternative for a quantified measure of value against which to evaluate accounting information, which is also exogenous to the accounting system itself.

A related issue is whether *Swedish* stock prices constitute a relevant measure of value. Easton and Harris (1991) is based on data from the United States, as are most studies made with that approach. The Swedish stock market is substantially smaller than those in the US. However, due to the relatively small number of companies in the Swedish market, the likelihood of any of those being ‘overlooked’ by market participants may actually be smaller than in the US. In addition, closer interaction between companies and investors may actually make Swedish stock prices more reflective of value relevant events, than is the case with US prices<sup>34</sup>. In addition, Claesson (1987) found that the Swedish stock market efficiently impounds information. In summary, the assumption that Swedish stock prices are useful as a measure of value appears reasonable<sup>35</sup>.

If stock prices are a useful measure of value, one can think about what ‘ideal’ accounting measures would look like according to the two models previously defined. In the return model, the ideal situation would be that the measure of accounting return is perfectly correlated with the measure of stock return, i.e. that the model has an  $R^2$  of 100%. Then, all value relevant events on the stock market are also reflected in the accounting numbers. In the price model, the ideal situation would be that the  $\varphi_1$ -coefficient is the inverse of the equity cost of capital, and the  $\varphi_2$ -coefficient equals one. The  $\varphi_1$ -coefficient measures how

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<sup>34</sup> In a comparison of the US and Japan, Jacobson and Aaker (1993) present evidence that Japanese stock investors are better informed than their US counterparts. This gives an indication that stock prices in non-US markets may actually reflect more information than prices in US markets.

<sup>35</sup> To the extent that movements on the New York Stock Exchange (NYSE) affect the Stockholm Stock Exchange without relation to underlying shifts in ‘fundamental’ values of Swedish companies, prices in Stockholm are subject to an additional disturbance that do not affect US exchanges. However, to the extent that actors on the Swedish market see NYSE as a predictor of global economic events that also affect Swedish companies, Swedish stock prices are still a relevant measure of value according to the definition given here.

much the stock price moves for each movement in accounting earnings. If, for example, an increase in earnings is seen as permanent, that should lead to an increase in stock price that is equal to the increase in earnings times the inverse cost of equity capital. If the  $\phi_2$ -coefficient equals one, then accounting equity is a perfect measure of stock capitalization.

However, there are reasons why this will not happen in practice. First, accounting is based on historic information, so there will always be value relevant events that are not yet reflected in accounting earnings. Second, accounting principles used may not reflect stock returns. Since, in this dissertation we are interested in evaluating the effect of accounting principles used, the way in which value relevant events are used to price stocks should ideally be constant or controlled for. Here, they are assumed to be constant, and this assumption is tested in various ways, for example through stratifying the sample by year, industry, and company size and looking for systematic differences in stock market valuation.

We can note here that the framework developed in Section 1.3 provides a justification for why accounting can be useful for stock market receivers even though accounting is based on historic data, and lags value relevant events. The reason is that accounting may be used as a *basis* for forecasts. Also, the concept of actual accounting risk is defined as the variability of accounting measures around some fundamental measure of value. If this fundamental measure is assumed to be stock prices, the return model used here will provide a measure of actual accounting risk. In addition, in a situation where we have ‘ideal’ accounting measures as discussed above, actual accounting risk will be zero.

A statistical issue with the return model used is the potential for first-order serial correlation in the 15-month windows, because windows overlap. The effect of the serial correlation is tested for statistically. In addition, tests are made with 12-month windows in order to see whether results are substantially different. Further statistical issues include that the data used is not normally distributed, or that there may be multicollinearity between the independent variables. These issues are tested for. Also, outlying observations are controlled for, so as to avoid the results being unduly affected by a handful of extreme observations (Easton and Harris, 1991, p. 24).

In this dissertation, the effects on value relevance from harmonization is studied. Therefore, the two concepts of value relevance and harmonization need to be defined.

As noted above, value relevance is defined by the specific model used. For the return model, that means the level of association between stock returns and accounting earnings, as measured by  $R^2$ 's. The higher the level of association, the higher the value relevance of earnings. For the price model, value relevance is defined by the size of the coefficients, as discussed previously.

Harmonization can be defined with various levels of complexity, as pointed out by Tay and Parker (1990). Van der Tas (1988), for example, suggest the use of an index to measure the level of harmonization. That method is not used here, due to inherent measurement problems in complex measures. Instead, Swedish accounting provides a clearer way of defining harmonization, based on whether tax allocations are shown or not.

The Swedish accounting system has traditionally allowed companies to make allocations to untaxed reserves, which are shown on the income statement (there is conformity between financial reporting and tax accounting in Sweden). In this setting, the bottom-line net income number may not be driven by attempts to arrive at an income number that is useful for stock market receivers, but rather by tax concerns (for a more in-depth discussion of this issue, see Jönsson and Marton, 1994). Since it was believed that this system created difficulties for international investors, some companies, mainly those with international stock listings, started abolishing it in the late 1980's and replaced it with deferred tax accounting. The importance of the issue is further emphasized by the fact that the first recommendation promulgated by Redovisningsrådet<sup>36</sup> did away with the use of untaxed reserves for consolidated financial statements. It should be noted that Redovisningsrådet is explicitly attempting to harmonize Swedish accounting to International Accounting Standards (IAS)<sup>37</sup>. In addition, Weetman and Gray (1991) found that adjusting for tax allocations is the most important adjustment when Swedish companies make US GAAP reconciliations. Doing away with tax allocations is seen in this dissertation as both an important harmonization in its own right, and as a proxy for a general level of harmonization<sup>38</sup>.

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<sup>36</sup> Redovisningsrådet (the Financial Accounting Standards Council) is the primary Swedish accounting standard setter. It was created in 1989, and its first standard issued in 1991 dealt with consolidation and deferred tax accounting.

<sup>37</sup> To the extent that IAS's are made for stock market users of accounting while traditional Swedish accounting is not, we would expect a harmonization of Swedish accounting with IAS's to lead to more useful accounting from a stock market perspective.

<sup>38</sup> It is likely that companies that go through the trouble of removing untaxed reserves also harmonize their annual reports in other ways. The same line of reasoning may apply to the entire Swedish accounting system, i.e. once the removal of reserves is required, other harmonizing activities may be undertaken. An example is that the removal of untaxed reserves coincided with a more standardized treatment of goodwill.

Harmonization can also be defined on different levels of the accounting systems, ranging from actual reporting practice, to harmonization of promulgated rules (Tay and Parker, 1990). In this dissertation, as is obvious from the discussion above, harmonization is defined through actual reporting practice, as evidenced by annual reports. In this dissertation, we are not interested in studying whether Swedish accounting *regulation* is being harmonized with the rest of the world.

Thus, companies are classified according to whether or not they use untaxed reserves in their financial statements. The two groups resulting from this are compared to see whether there is a statistically significant difference among them. The pre-harmonization group includes companies showing tax allocations, and the post-harmonization groups does not show them. From 1992 and onwards (following recommendation 1 by Redovisningsrådet), all companies are included in the post-harmonization groups. In previous years, some companies (mostly large multinationals) are in this group (see further the descriptive data in Section 5.3).

Based on the methodological discussion in this section, we can formulate the following hypothesis:

**H<sub>1</sub>** *Accounting earnings are more value relevant when deferred taxes are used than when tax reserves are used.*

Tests of the hypothesis are discussed in Chapter Seven.

Additional statistical tests were done based on the data presented in Section 5.3. Some large, Swedish companies present selected financial information according to US GAAP or to IAS's. These observations are picked, and net income and equity numbers are compared to those obtained by following Swedish accounting rules.

Two tests are performed. The first is a simple comparison of averages of accounting income and equity, to see how large the actual difference is among the observations included. Second, a paired samples test is applied, in order to see whether the Swedish numbers are significantly different from the US GAAP/IAS numbers. The results of these tests are discussed in Section 4.3.

This section concludes with a note on reliability and validity for the statistical studies. Reliability is less of a problem in the statistical studies than in the interviews and report studies, since the method used is explicit and precise. Thus, it is likely that if the statistical studies were repeated, the results would

be similar. Issues relating to validity have already been discussed throughout this section. As pointed out, several tests are performed in order to investigate potential validity problems, and the results of these tests are discussed in Chapter Seven.

### 3.3. Analysis

This section covers methodological issues encountered during the analysis phase. It deals mostly with analysis of results from the interviews and report studies, since the analysis of the statistical studies is largely defined in advance, by the models used in the studies. The interviews and report studies are different, in that they are not as well-structured in advance. This is especially true when categories are generated in the analysis, and less so when pre-defined categories are used. In the former type of research, the quality of the analysis tends to be more important than how the study was carried out (Mitchell, 1983). Thus, while the latter methodology is only covered briefly (Section 3.3.1), the former methodology is discussed in more depth (Section 3.3.2).

#### 3.3.1. Pre-Defined Categories

When pre-defined categories are used in the analysis of interviews, the focus is on what interviewees explicitly state. The focus is not on attempting to understand underlying thought processes in the interviewees. Answers are structured and classified, and then a quantification of the responses is done. This is a type of restriction imposed on responses (Potter and Wetherell, 1987, p. 39), which is done in order to enable a more succinct presentation of interview results. Actually, in this type of interview analysis, restriction of account variability is desirable (Silverman, 1993, p.94). The structure of the answers largely follow the questionnaire used during the interviews (see Figures 3.1 and 3.2). Thus, as with the statistical study, the analysis is mostly defined by how the study is carried out. In the field of international accounting research, similar analysis methods were used by, for example, Choi and Levich (1990). Day (1986) used a similar method in a study of financial analysts.

In the analysis using pre-defined categories, reliability and validity are strengthened by the fact that interviewees are experts in their fields. Thus, it is likely that they are *able* to make explicit what their opinion is on matters covered<sup>39</sup>. Whether they are also *willing* to make explicit statements is another issue, which is discussed further in Section 3.3.3.

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<sup>39</sup> One can surmise that experts in a field on average have spent more time pondering what it is they are doing than non-experts, and thus have a higher ability to make their work explicit.

No analysis using pre-defined categories is applied to the study of analysts' reports. A potential such analysis method would be content analysis. It is not used, however, since as pointed out by Potter and Wetherell (1987, p. 41), it can lead to excessive suppression of relevant account variability. In addition, the method ignores the context of concepts used.

### 3.3.2. Generating Categories

In analysis where categories are being generated, aspects of several prior research traditions are utilized in this dissertation. Alvesson and Sköldberg (1994) discuss several such traditions, including grounded theory, hermeneutics, and discourse analysis. One important aspect of all these traditions, which is picked up in this dissertation, is that when generating categories, there should be interaction between categories generated and the empirical material. There is not a one-way logical flow from the categories to the empirical material or vice versa, but the direction of the logical flow will change several times during the analysis. Alvesson and Sköldberg (1994, pp. 43-46) suggest, based on Peirce (Houser and Kloesel, 1992, pp. xxxviii-xxxix) and Hanson (1958, pp. 85-86), that methods involving this interaction be called abduction. Thus, it could be seen as a third approach, apart from deduction and induction.

In this dissertation, the analysis involving generating categories is primarily inspired by grounded theory, hermeneutics, and discourse analysis. Each of these research traditions are discussed in turn below. It is part of the nature of this type of analysis that it is not possible to precisely define the analysis in advance. Therefore, the actual application of the approaches can be found in the analysis chapters, i.e. Chapter Six, Eight, and Nine.

#### Grounded Theory

Grounded theory (Glaser and Strauss, 1967; Strauss, 1987; Strauss and Corbin, 1990) is a major area within empirically based research. Lye et al (1997, p. 24) suggest that it is a relevant methodology for analyzing unstructured data (for example from interviews and text analysis) in accounting research. The principal idea that the structuring of the analysis should be based on the empirical material is followed in this study. However, it should be noted that even though the dissertation is inspired by grounded theory, not every aspect of it is adopted.

The definition of grounded theory can be directly related to the distinction made in this dissertation between using pre-defined categories and generating categories. Glaser and Strauss (1967, pp. 12-15) distinguish between research

focused on verification of theory versus generation of theory. The former involves pre-defined categories, while the latter involves generating categories. Glaser and Strauss (ibid.) actually delimit grounded theory by distinguishing it from theory verification, and state that they focus instead on methods for theory generation<sup>40</sup>. Glaser and Strauss (ibid., pp. 15-18) also say that the two methodologies have often been associated with the use of quantitative and qualitative data, respectively. Such a distinction is not necessary, however, since both types of data are usable in both methodologies. The use of quantitative data in grounded theory, for example, is discussed by the authors (ibid., p. 185). This is in agreement with the view taken in this dissertation, where qualitative data is analyzed according to both methodologies.

In addition, Strauss (1987, p. 1) points out that the analysis of a diverse set of empirical data is useful in social science research. This is in agreement with the application of three separate methods for collecting empirical data in this dissertation (interviews, report studies, and statistical studies).

There are a few important aspects of grounded theory that serve as inspiration for the analysis methods used in this dissertation. The aspects relate to what is considered to be a theory, that is what is supposed to be generated in research, and to the interaction between various phases in the research process.

Regarding the first aspect, Glaser and Strauss (ibid., pp. 23, 35) suggest that ‘conceptual categories’ are generated, as well as hypotheses regarding relations between such categories. Alvesson and Sköldbberg (1994, p. 78) suggest that categories may be seen as concepts, but here they are rather seen as the objectified social structures that were discussed in Section 3.1.2. It is important to note in this dissertation that not only are social structures studied, but also the relations between these structures.

The second aspect is about the role of theoretical structure in the analysis, and at what analysis phase structure should be applied. Glaser and Strauss (1967, p. 43) point out that an *interaction* between the different phases of research is important. The relevant phases are collection of empirical material, coding, and analysis. In this dissertation, the interaction is primarily between coding and analysis, and not so much with the collection. The interaction is used in order to enable a theory (categories and their relations) to emanate from the empirical data itself (Glaser and Strauss, 1967, p. 46).

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<sup>40</sup> The term ‘generating categories’, as it is used in this dissertation, is obtained from the field of grounded theory (Alvesson and Sköldbberg, 1994, p. 78). However, that does not mean that the usage of the term in this dissertation is identical to that in grounded theory.

An issue when applying the interaction between coding and analysis is how much structure should be developed, and to what extent verification of the structure should be attempted (ibid., p. 28). As pointed out in Lye et al (1997, pp. 20-22) there seems to be different views on this, with Glaser and Strauss (1967) being more focused on generation of theory, while later works by Strauss (1987) and Strauss and Corbin (1990) allow more structure in the analysis. Strauss (1987, p. 306), for example, talks about how pre-existing theory can be useful in grounded theory research, while Strauss and Corbin (1990) provide a detailed methodology for grounded theory. In this dissertation, the latter view is taken, in that the use of structure should not be precluded if it can help in answering the research issues stated in Section 1.1.

In the actual methodology suggested in grounded theory, coding plays a central role, since this is the activity that leads to the generation of categories (Alvesson and Sköldbberg, 1994, pp. 78-79). The coding should be done in various steps, with the initial step designated 'open coding' (Strauss, 1987, p. 28; Strauss and Corbin, 1990, p. 61). In this stage, provisional categories are deduced from the empirical material. Another stage is 'selective coding' (Strauss, 1987, p. 33; Strauss and Corbin, 1990, 116), in which the categories generated in open coding are used for a more systematic coding and analysis of the material. The approach with two levels of coding is used in this dissertation in the parts of the analysis where categories are being generated.

One can expect high validity from findings in grounded theory, since the findings are directly built on the empirical material analyzed, while the level of reliability may be less certain (Glaser and Strauss, 1967, p. 23). Reliability can be increased, however, by the researcher explicitly stating how the findings were arrived at, and by using systematic coding (ibid., p. 229). This is also attempted in this dissertation.

### Hermeneutics

Hermeneutics is the second type of research classified by Alvesson and Sköldbberg (1994), which provides guidance for the analysis in this dissertation. There are two aspects of hermeneutics that are especially interesting. First, the hermeneutic circle (ibid., p. 116) is seen as useful in the analysis, with its interaction between the parts and the whole, as well as the empirical material and the interpretation of the material. Second, hermeneutics suggests a holistic understanding of the studied subjects. It should be pointed out here that this dissertation primarily receives methodological inspiration by hermeneutics, without necessarily adopting its philosophical underpinnings (as discussed, for

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example, in Gadamer, 1965). Thus, a rather ‘shallow’ application of some aspects of hermeneutics is undertaken here.

Hermeneutic analysis is characterized by interaction between different levels. This interaction is illustrated by the hermeneutic circle (Alvesson and Sköldböck, 1994, p. 116; Holme and Solvang, 1991, p. 103). Several different dimensions can be subject to the interaction. First, there is interaction between the parts and the whole. Second, there is interaction between the empirical material and the researcher’s interpretation. Third, there is an interaction between what is manifest and what is latent in the empirical material. Note that this is not an exhaustive list.

In the analysis, the whole is constructed from the parts, at the same time as the whole helps define the parts. In a sense, holistic models are created based on individual statements. Then, the models are used to put the individual statements in a context.

Similarly, there is an interaction between the empirical material and the interpretation of the material. In the actual analysis, this is achieved by using a two-step method. First, conceptual structures are created from a more cursory analysis. These structures are then used for a more thorough examination of the empirical material. The circular nature of the hermeneutic analysis is evidenced by the fact that the structures are adjusted when called for by results from the in-depth analysis.

The third dimension for interaction is based on what is manifest and latent in the empirical material. It should be noted that the manifest aspects of the material are mostly covered in the analysis based on pre-defined categories. Thus, it would seem natural to focus more on latent aspects in the analysis where categories are generated. In a sense, latent aspects are discussed above, since they are, to some extent, made up of holistic and conceptual structures. If manifest aspects are what people actually say, latent aspects concern what drives the statements. The manifest answers ‘what’-questions, while the latent answers ‘why’-questions.

Concrete examples of the three dimensions can be given for the analysis of interviews with non-Swedish analysts. The interviewees make a number of statements. These are the parts, the empirical material, and the manifest aspects of the study. The whole, the conceptual structures, and the latent aspects may be, for example, a model for how company analysis is done, political motives behind statements, or other general influences based on contextual incentives facing interviewees. The latter two suggest that the researcher should have a

somewhat sceptical approach to manifest interview answers (cf. Alvesson and Sköldbberg, 1994, p. 129).

Related to the sceptical approach is the concept of double hermeneutics (Giddens, 1976, pp. 144-148). The empirical material in this study consists of interview accounts and report texts. This material may or may not tell us something about the underlying social structures which guide the actions of interviewees and report writers. In the study, it is really these structures that are interesting. Thus, if interviewees and report writers have incentives to tell a different story about the structures than what they actually believe, this fact must be considered in the analysis.

The interviews are clearly accounts that describe actions. Reports, on the other hand, could be seen as either accounts or as actions in their own right. Reports are the end products of analysts' or accountants' work. They are the product that justify the existence of analysts and accountants, since they are the medium with which analysts and accountants add value to the economy. Thus, in line with some claims made in discourse analysis (Potter and Wetherell, 1987, pp. 28-29) the reports can be seen as constituting the primary action of analysts and accountants. If action is guided by underlying social structures, reports are in one sense closer to the structures than the interviews are. On the other hand, reports are not intended to describe the thought processes involved in their generation. Thus, it is likely that interviews and report studies complement each other in the analysis.

Alvesson and Sköldbberg (1994, pp. 171-175) includes some concrete guidance on how hermeneutics can be applied. First, the structures or patterns that appear in the data, must be internally consistent, and provide a deep understanding of the empirical material, i.e. go beyond that which is immediately apparent. Second, the empirical material is not seen as data, but rather as a 'text' (literal or figurative) that can be interpreted by the researcher. Third, the relationship between the text and the data is best described as a dialogue, i.e. as active interaction. Fourth, there is a constant process of interpretations on the part of the researcher. Fifth, the reasonableness of interpretations should be evaluated. A narrow classification of individuals are more likely to give more reasonable interpretations. However, the reasonableness also increases with the frequency of occurrences of the events studied, and with the number of individuals that can be classified into a studied category. In this dissertation, the methodology of hermeneutics serves as an inspiration, although not every specific step depicted here is carried out.

### Discourse Analysis

The third type of research that provides guidance to the analysis where categories are generated is discourse analysis. Discourse analysis focuses on language, and it is closely related to the field of linguistics. As discussed in Section 1.3, accounting information itself can be analyzed as a form of language (cf. Mellempvik et al, 1988, p. 104). In addition, discourse analysis can be used to analyze the language used in interview responses and reports.

In discourse analysis, research methods developed in linguistics are used. This study is especially inspired by Moore and Carling (1982; 1988), and Potter and Wetherell (1987). As noted earlier, linguistics can be used on two levels in the study. First, accounting itself can be analyzed as a type of language. Second, interview responses and reports can be analyzed with a linguistic focus.

The first approach is largely inspired by Moore and Carling, who define the epiphenomenalist view (1982, pp. 160-167). This view provides the foundation for the model presented in Section 1.3, and graphically depicted in Figure 1.1. Important characteristics of the epiphenomenalist view is that language per se (accounting in this study) is data. Meaning only emerges when the data is received by a user. Thus, the users (financial analysts in this study) must be involved in a study of meaning of language. In addition, one must look at the context and background of users in order to understand how meaning emerges. This is useful in this study, since it provides a potential operationalization for why analysts from different countries (contexts) may create different meanings from the same data sets. This line of reasoning is further strengthened by the fact that it is especially difficult to have shared meanings when language is about complex concepts (such as income, and other accounting concepts, Moore and Carling, 1988, p. 50). Thus, in regards to those types of concepts, it is especially relevant to study the emergence of meaning by language users.

When financial reports are seen as triggering processing in the minds of analysts, it becomes interesting to study how this processing is done. This is done in Section 8.2, through the generation of a model of how analysts process data that they receive. Moore and Carling (1982, p. 218) suggest that such a research approach will provide teleological rather than deductive explanations of language user behavior. In other words, results are more empirically based, and less theoretically driven.

One can also focus on the language itself, i.e. on the language that is reflected in interview protocols and used in reports. One way to conduct such an analysis is to look for narrative structures or stories (Silverman, 1993, pp. 72-80). Moore and Carling (1988, p. 169) see this as important, since they see the telling of

stories as part of people's effort to construct reality. Boland and Pondy (1986) is an example of prior use of this method in accounting research. It is also applied to the analysis in this study. Then, the focus is what narratives or stories are used by interviewees to describe reality, and how analysts explain their conclusions (in interviews and reports). Since the interview transcripts do not depict interviews word-by-word, stories focused on are on a conceptual level, rather than a word-by-word analysis.

Potter and Wetherell (1987) develop methods for analyzing language use. There are some basic notions in their view on language (ibid. pp. 28-34). First, language is seen as action, rather than just symbolic description (this is sometimes referred to as speech acts). Second, language is used to construct the world. Third, language is dependent on the context it is used in. These notions imply that the analysis should focus more on the language itself (since language is important as actions and in constructing the world) than in the Moore and Carling framework. Like the latter framework, Potter and Wetherell focus on studying language in its context. The implications of studying language itself, and on focusing on context, will be discussed in turn.

Text analysis can be focused on the actual text, or on underlying social phenomena that the text reflects (Silverman, 1993, p. 59). Potter and Wetherell go quite far in an actual text focus, in that they claim language is the action, and the underlying structures are not interesting at all (1987, pp. 34-35). As pointed out in Section 3.1.2, the object of study in this dissertation are social structures rather than the language used to communicate such structures. Thus, the perspective taken in this study is rather inspired by Alvesson and Sköldbberg (1994, pp. 286-287). They claim that discourse analysis can be used to study not only language, but also thought patterns of interviews, and even higher level social structures and patterns. That is what is actually done in this study.

The focus on context leads to the idea that language will differ depending on the context in which it is studied. Potter and Wetherell (1987, p. 67) emphasize that this points to the importance of considering *variation* in accounts. The authors also warn against the danger in suppressing account variability through selective reading (pp. 39-43). An attempt is made in this study to take this warning seriously, and avoid reading that which the researcher wants to read, rather than basing the analysis on the empirical material itself.

There are several ways in which ideas put forward by Potter and Wetherell can be useful in the analysis where categories are generated. First, the view of language as action can be especially useful in the study of reports, since they do constitute a type of action by analysts. Second, in viewing language as

construction of reality, and dependent on specific contexts, this study may show less variability than general sociological studies, since interviewees and report writers are experts in their field. They may therefore have some shared knowledge and frame of reference that have already constructed a similar world for all of them. Related to this are the concepts of social knowledge and competence (ibid., pp. 56-59). These enable people to act, and to describe their actions. In this study, one can analyze what social knowledge and competence is needed for financial analysis. The existence of shared knowledge implied in the accounts can be identified.

A related but slightly different concept is interpretative repertoires (ibid., pp. 146-149). These are mental structures, that are shared by individuals in a group of people<sup>41</sup>. They are used to construct and interpret the world. This is especially helpful in categorizing interviewees, since that can be based on different uses of interpretative structures by individuals in different categories.

Potter and Wetherell also provide some more concrete methodological points for conducting a study in the discourse analysis framework (ibid., pp. 160-175). The sample selection must be small enough to allow for a thorough analysis of each selection. This holds true for the primary interviews. For the reports it is necessary to select a few for this type of study (see Section 3.2.2). Written material is often useful in discourse analysis, which is an argument in favor of including the report studies. Coding of empirical material involves classifying and selecting parts of the material, so that it becomes manageable. The authors point out that coding is a cyclical process, meaning that the final coding is often not known until the analysis is concluded. The researcher can move back and forth between coding and analysis. This last idea is similar to grounded theory and to the hermeneutic circle, see above.

There is no set formula for the actual analysis of the empirical material. However, in general there is first a search for patterns or structures. Patterns involve both variability and consistency between accounts. Second, there is an attempt to explain the patterns through the functions of the language (empirical material) studied. This second phase also involves finding evidence in the material for the functional explanations. This general method is used in this study, in the analysis of both interviews and reports.

Four suggestions are given for ascertaining validity in discourse analysis. First, the results of the analysis should be logically coherent. Second, results should bear some relationship to what studied subjects are actually doing. This is less

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<sup>41</sup> Thus, interpretative repertoires are similar to the concept of social structures as used in this dissertation.

of a problem in this study, since the research issue involves a relatively well-defined and structured activity (i.e. financial analysis). Third, results leading to new questions, not to complete answers, are more likely to say something about how language is actually used. This involves the distinction between open, inductive analysis, and formal, deductive modeling. Fourth, results that are fruitful in the sense that they contribute to an understanding of the world, could be seen as more valid. This fourth criterion is seen as the most powerful by Potter and Wetherell. Apart from the four suggestions shown here, the authors also give advice on how to write reports based on discourse analysis. They point out that it is often helpful to include quotes from the studied accounts, and that it is important to show the logical links from the empirical material to the findings. That is attempted in this dissertation by the provision of quotes from the interview protocols in the analysis chapters, i.e. Chapters Six through Nine.

### 3.3.3. Generalizability, Reliability, and Validity

This leads us to the general issues of generalizability, reliability, and validity in the analysis involving the generation of categories. The main focus in this type of research may not be on generalizability, but rather on understanding the individuals included in the actual study undertaken. The topic is still of interest, however, since it can help in evaluating how research results may be useful. There are two issues involved here. First, generalizability assumes some type of correspondence between research results and an objective reality (Alvesson and Sköldberg, 1994, pp. 40-41). To the extent that social structures studied in this dissertation are shared by many individuals, the criteria of objective reality is fulfilled. Second, in research analysis where categories are generated, people are studied in their context, i.e. specific contextual characteristics are seen as important for the results. Since no two contexts can ever be the same, this view contradicts generalizability. However, since analysts not studied here can be assumed to be in a reasonably similar context as the ones studied, it could be possible to generalize results, at least to other financial analysts.

However, what must be remembered in generalizing from analysis where categories are generated, is that it is usually not possible to achieve the type of quantifiable probability for the generalization as is obtained in statistical studies. Instead, we have seen certain patterns in the individuals included in the study, and we have no apparent reason to see a different pattern, were we to study other individuals in a similar context (Silverman, 1993, p. 160). Hermeneutics, for example, can be used for finding patterns that go beyond the specific individuals studied (Alvesson and Sköldberg, 1994, p. 122).

Reliability and/or validity may not be relevant for research where categories are generated, at least not as these concepts are understood in other types of research. More specifically, the measurement issues that arise in many statistical studies, for example, do not arise (Silverman, 1993, pp. 106-107).

However, as Silverman (*ibid.*, p. 146) argues, ignoring reliability issues when categories are generated precludes the systematization of such research. Reliability requirements for interviews are satisfied if proper notes are taken, according to a somewhat standardized system (*ibid.*, p. 149). This was done in the present study. Similarly, in text analysis, systematization of the analysis becomes essential for ascertaining reliability (*ibid.*, p. 148). It is important to note that technical methodological standardization should not impede the conceptual openness underpinning the analysis methods discussed above.

Kirk and Miller (1986, pp. 41-42) argue that reliability is generally increased through triangulation, i.e. applying several different studies and/or methods to study one research issue. Triangulation is also discussed by Potter and Wetherell (1987, pp. 63-64) as one way to confront the issue of substantial variability in accounts analyzed. Triangulation is used in this study, since both interviews and report studies are used. In addition, interview analysis using pre-defined categories, and statistical studies, are carried out.

Neither can validity issues be ignored when categories are generated. A researcher cannot claim that results are valid simply based on closeness or intense experience with the subjects studied (Silverman, 1993, p. 153). Triangulation was mentioned above for testing reliability. It is also suggested to test for validity (*ibid.*, 156-158). Two other issues relating to validity can be mentioned, namely the issue of clear research trails, and trust in respondents.

Validity is increased by the provision of a clear research trail for the reader. The trail should show the logical links between the empirical material and the research results. One way of doing this, which is used in this dissertation, is by providing quotes from interviews that form the basis for the researcher's interpretations. As suggested by Alvesson and Sköldböck (1994, pp. 167-168), this is essential in presenting results from, for example, hermeneutics. This is because no interpretation should be considered 'final' or 'correct', and therefore the reader should be given the chance to make alternative interpretations from the empirical material.

A potential validity problem, as pointed out in Section 3.2.1, is that interviewees and report writers are not interested in presenting information about themselves, and their company analysis process. One could suspect that financial analysts

have both the ability and the desire to portray themselves in a positive light. However, the analysis methods discussed above are well-suited for a critical analysis of respondents (Alvesson and Sköldbberg, 1994, p. 129). This very issue is an important justification for performing analysis where categories are generated, rather than just using pre-defined categories. In the latter type of analysis, interviewees responses are largely taken at face value. On the other hand, as Moore and Carling (1988, pp. 171-172) point out, a tacit assumption of sincerity is necessary, otherwise language use collapses. This last point would suggest that an overly suspicious approach to respondents is not relevant. However, in the actual analysis, the potential self-interest of respondents is considered.

### 3.3.4. Summary

This section provides a summary of what is actually done in the analysis. First, there is the statistical analysis, which is largely defined by the model used. Second, there is an analysis of interviews and reports using pre-defined categories<sup>42</sup>. However, since what is explicitly stated by interviewees cannot always be taken as explanations for their behavior (Silverman, 1993, pp. 199-201), the analysis where categories are generated is undertaken. In addition, Boden (1994, p. 2) claims that it is not relevant to focus on only the micro- or the macro-level in research. The former analysis is more on a macro-level, while the latter analysis is more on a micro-level. Thus, following Boden, it is relevant to include both in this dissertation.

Another justification for including the analysis where categories are generated is related to the discussion of the self-interest of analysts. They are professionals that assumedly have pride in what they do. Therefore, they are probably reluctant to convey the message that they have problems understanding Swedish financial statements. It is thus necessary to find such problems indirectly, which is what is done when categories are generated. This must especially be considered in analyzing reports. The purpose of reports is not to describe the process of company analysis, but to provide arguments backing up a recommendation. Cf. Holme and Solvang's (1991, pp. 136-138) point that written sources are limited by the information that is excluded.

The analysis involving the generation of categories is mostly inspired by the research traditions of grounded theory, hermeneutics, and discourse analysis. A point to be made is that in this analysis it is still possible to use counting of

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<sup>42</sup> The pre-defined categories are either based on the structure of the interview questionnaire used, or on pre-existing theory.

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occurrences (ibid., pp. 162-165). This is done in the analysis in Chapter Nine, for example.

Chapter Nine, and parts of Section 8.2, are based on a categorization of interviewees. Most of the time the identification of categories is not entirely clear, but rather a fuzzy set of characteristics must be used (Potter and Wetherell, 1987, p. 119). The characteristics focused on in this study are the ones that have some relevance for the research issue, and these are on a relatively low level. On a higher level, the study is already focused on only one category of individuals, namely sell-side financial analysts. These are likely to have common elements in their perception of the world, which in turn is likely to facilitate the categorization (Moore and Carling, 1982, pp. 172-173).

Coding of the material is an important part of the analysis of interview protocols and reports. The actual coding structures used are presented in the analysis chapters (Chapters Six through Nine).<sup>43</sup>

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<sup>43</sup> In the actual analysis of interview accounts and reports the computer program QSR Nud.ist is used. This program enables a coding structure to be applied to text, and then the program can extract all text related to a certain code. Consequently, the interaction between the empirical material and the interpretation of the material, is facilitated.