Chapter Two

Prior Research and Theoretical Framework

The written accumulation of knowledge in the Western or European sphere began around the 6th century BC (Russel, 1979, pp. 44-45). Since then, knowledge and literature has expanded at a geometric rate, especially in the last few centuries, and it has become increasingly specialized. Out of this vast array of literature, this chapter delimits what is important for the dissertation, using the research issues in Chapter One as the point of departure.

Once the research issues are specified, it is relevant to ask oneself what is already known in the field of interest. In this dissertation the focus is on how accounting is used as a communicative tool on the stock market, and international aspects of this usage are especially emphasized. Consequently, prior research on accounting and the usage of accounting, on the functioning of stock markets, and on international accounting is relevant. Section 2.1 covers accounting research on general level, but with an emphasis on accounting for stock markets. Research on the functioning of stock markets is covered in Section 2.2, under the heading of financial economics. This is followed by specific areas within accounting research, namely international accounting research in Section 2.3. Much of the micro-level research on stock market users of accounting has focused on financial analysts, and this research is discussed in Section 2.4.

2.1. General Accounting Research

This section is called *general* accounting research because it discusses issues affecting most research in the field of accounting. This differs from two accounting research fields that are more narrowly defined, that is international accounting research (Section 2.3), and research on financial analysts (Section 2.4).

The section begins with a discussion of accounting research in a wider framework of economics. Further, it is shown that there are different approaches that can be applied when accounting research is conducted. This is

followed by a historic overview, and examples of accounting literature that can be directly linked to this dissertation.

Accounting is about measurement of economic events and states, and there is an interrelationship between accounting and the economic sphere (Hopwood, 1992). Therefore, accounting research is related to economic research. In a sense, this link is paradoxical, since neo-classical economic theory assumes zero information costs (Huang and Litzenberger, 1988, p. 259; Kreps, 1990, p. 264). Thus, accounting lacks theoretical relevance in such a framework.

There are two ways of overcoming this lack of relevance. First, the assumption of zero transaction costs can be dropped, while still remaining in the general neo-classical framework. Second, the neo-classical framework does not have to be used at all.

The first approach is based on, for example, Coase (1937), or Simon (1976). Coase used deductive modeling within a neo-classical framework to study effects of positive contracting costs. Simon took a more behavioral approach, in arguing that neo-classical rationality is limited by human limits to knowledge, and processing of knowledge (Simon, 1976, pp. 80-81, 240-242). Coase is explicitly linked to one influential strain of research, namely positive accounting theory (Ball and Smith, 1992, pp. 1-3; Watts and Zimmerman, 1986, p.180; 1990, p. 56). Implicitly, Coase's and Simon's thinking underlies market-based accounting research (MBAR), which is discussed further below.

The second approach is based on descriptive or interpretative research. Historically, accounting research has been more or less purely descriptive (see below). Interpretative approaches to accounting research do not use formal modeling of accounting phenomena. Rather, the focus is on accounting as a social or political phenomenon. Social reality is seen as emergent and constructed instead of as given (Chua, 1986, p. 615; Covaleski and Dirsmith, 1990, pp. 547-548; Hopwood, 1992, pp. 125-126).

This dissertation is inspired both by MBAR and some aspects of interpretative approaches. By solving the issue of relevance issue in different ways, different research approaches have come to be used in the field of accounting research. How the approaches are applied in accounting research, is briefly discussed below.

Chua (1986) identifies three separate research approaches in the field of accounting. Mainstream is the more objective approach, while interpretative is more subjective. Critical accounting research (Cooper and Hopper, 1987) also uses a subjective approach, but it is not covered here, since it has as-

sumptions that are not of interest in this dissertation. The following brief characterization of the first two approaches is largely based on Chua (1986) and Jönsson (1988).

Mainstream accounting research is the economics-based, empirical tradition that has dominated US research since approximately 1970. In this tradition, reality is seen as external and observable, and economic actors are assumed to be goal-oriented utility-maximizers. There is an almost exclusive use of statistical research methods, where generalizability and discovery of causal relationships are important. Knowledge is seen as cumulative, i.e. as increasing over time. Abdel-khalik and Ajinkya (1979) express the basis for this research approach. They claim that good research should determine the causal relationship between independent and dependent variables, select relevant factors that influence the dependent variable, and minimize random error. This research tradition is more fully described, for example, in Watts and Zimmerman (1986), Ball and Kothari (1994), Beaver (1989), and Foster (1986).

The interpretative approach to research sees reality as constructed through human interaction. Consequently, in order to study reality, the researcher has to take the perspective of the subject. Actions are assumed to be determined by shared norms and practices, not only by ends-means analyses. In this framework, accounting becomes part of the social construction of reality. The research methods used are, for example, interviews, case-studies, and participant observation. The approach is further described by, for example, Covaleski and Dirsmith (1990), and Boland (1993).

To conclude, there are differences between the two approaches, and there has also been some debate between them (cf. Chua, 1986; Watts and Zimmerman, 1990; Chambers, 1993). In this dissertation the view is taken that, even though the two approaches have somewhat different ontological bases, there are still usable methodological traits from both approaches. In mainstream accounting research deductively formulated hypotheses are tested, that is the variables studied, and their relationships are defined *before* the analysis of the empirical material. In interpretative research, on the other hand, variables tend to be developed as part of the analysis of the empirical material. As discussed in Section 3.1.1, both these methodologies are used in the dissertation, and it can thus be seen as bridging at least some aspects of the two research approaches.

As shown, there are different approaches to accounting research. Over time, accounting research has also changed on another dimension, namely the focal object of research. There has been a development from researching the ac-

counting system per se, to researching the actors that produce and use accounting.

When accounting research emerged in the 19th Century, descriptive research dominated. The descriptive period lasted until the mid 1950's. During this period, research was focused on finding the underlying logic and principles of practice (Henderson et al, 1992). Littleton (1953) is an example of this type of research. In the latter part of the period, the concept of 'true income' was used in order to analyze practice. Thus, the objective aspects of accounting were emphasized (Jönsson, 1988).

In the 1950's and 1960's, prescriptive theories became prevalent. The role of research was seen as that of improving accounting practice, instead of only describing it (Henderson et al, 1992). Improvement suggests a clearly defined goal to aim for, and during this period decision usefulness was used as such. There was a focus on the relevance of accounting for economic decision-making (Jönsson, 1988).

Around 1970, descriptive research again tended to dominate (Henderson et al, 1992, cf. mainstream accounting research discussed above). This research was based on economics, where accounting information was treated as a good, subject to supply and demand (Jönsson, 1988). The emphasis was on empirical and statistical studies. The shift around 1970 can be described as one from normative to positive theory (Kam, 1990; Watts and Zimmerman, 1986), or as a shift from studying how accounting information is generated to studying the interaction between accounting information and its users (Abdel-khalik and Ajinkya, 1979). In the 1980's, the economics-based approach was supplemented by more behavioral approaches, as noted above.

The development of accounting research in the 20th Century can be seen as a gradual shift in focus. It begins with a focus on the accounting system per se, in which the interest is in finding the internal logic of the system. It develops into a focus on the actors involved in the accounting systems, that is both producers and users of accounting. This is true both for the economics-based and the behavioral research approaches. This development continues, with some more recent research papers arguing for a clearer focus on the micro-processes in which the actors are involved, as well as their context (Schipper, 1991; Hopwood, 1994). This dissertation clearly follows in the tradition of focus on actors in the accounting system, rather than on the system per se. Both senders and receivers of accounting data are studied, and at least part of the dissertation investigates individual actors on a micro level.

With the increased focus on actors, assumptions made about actors becomes important. In line with previous distinctions between mainstream and interpretative research, actors can be seen as responding to deterministic laws, or as subjects that create meaning (Holme and Solvang, 1991, pp. 33-34). The view taken in this dissertation is further discussed in Chapter Three, and it suffices here to state that at least methodologies are applied from both research approaches.

An additional dimension according to which accounting research can be classified is that of which actors in the accounting system are studied. The focus can be either on actors that produce (senders) or actors that use (receivers) accounting. Second, among users as actors, there are several different types of users. On a high level, receivers are classified into those that are external and those that are internal to the reporting company. Overviews of research on accounting for internal receivers - that is management accounting - is found in, for example, Ashton et al (1995), Scapens (1991), and Emmanuel et al (1990). An overview of research on choices made by senders when producing accounting for external users -that is financial reporting - can be found in, for example, Ball and Smith (1992). Among external receivers, several different types may be focused on, including those on the stock market. As noted in Section 1.4, senders and receivers of accounting information on stock markets are studied in this dissertation, and prior research in this area is discussed in more detail below.

The last dimension for classification of accounting research to be discussed here is that the main function of accounting can be either measurement or the regulation of social relations (Jönsson, 1988, p. 15). When accounting is seen as an instrument for measurement, the goal of accounting becomes to convey information about constructs that are exogenous to the accounting system (Jönsson, 1988, pp. 20-21; Beaver, 1989, p. 104). Examples of constructs that are of particular interest to stock market receivers of accounting include the value of a company at a point in time, and the magnitude of value creation over time periods[9].

When accounting is seen as an instrument for regulation of social relations, accounting becomes a tool for some groups of people to control or influence the behavior of other groups. In the area of accounting for external receivers this view is exemplified by the stewardship perspective (Ijiri, 1975), in which accounting is used by company owners to assess (control) the work done by hired managers. Thus, owners evaluate to what extent managers fulfill their

[9] Information about these two constructs would be provided by reported equity (value at a point in time), and by reported net income (value creation).

stewardship function in safeguarding the owners' capital. Another example of this view is provided by positive accounting theory (Watts and Zimmerman, 1978; 1986; 1990), which attempts to explain accounting choices in terms of impact on the utility functions of actors in the accounting system.

In this dissertation the main emphasis is on accounting as an instrument for measurement, as evidenced by the operationalizations of the research issues presented in Section 1.3.

To sum up the discussion so far, relevance of accounting is studied in this dissertation in terms of capital market valuation of companies. This is just one of many potential areas in which accounting can have relevance. A further point to note is that the research outlined in this section is mostly in the Anglo-American tradition. Continental European research, for example, is not covered to any significant extent. This is primarily because much of the research that has been done to date in the area of accounting and stock markets fall in the former tradition.

After this delimitation of the wider accounting research field, it is time to think more specifically about how the relevance of accounting on stock markets can be studied. From a more theoretical perspective, the analysis chapters in the dissertation tie into three different areas. First, it is the study of relevance through comparing accounting numbers to constructs that accounting is meant to measure (ties into Chapter Seven). Second, there is the field that maps out in detail how accounting is used by actors on a micro-level (ties into Chapter Eight). Third, relevance is shown through a study of the relationship between accounting and individuals' creation of meaning (ties into Chapter Nine). Chapter Six, which is also an analysis chapter, ties in more directly with the discussion in Section 2.3 on international accounting research. Each of the three theoretical areas are covered in turn below.

In the literature, the comparison of accounting numbers to underlying constructs[10] is based on relevance of accounting for stock market users. Such markets, with large numbers of anonymous investors, create a need for public and standardized information that is distributed to each user simultaneously. Thus, trading on private (or insider) information is avoided (Jönsson, 1988). This is assumed to lead to capital markets being more effective capital intermediaries. In order to ascertain a proper level of standardization in practice,

[10] This research area involves the actual comparison of accounting measurements to exogenous measures (usually based on stock prices and returns). It is *one* part of the research field that views accounting as a tool for measurement.

regulation is used (Beaver, 1989, pp. 184-186), which is supported by professions of accountants and auditors.

The framework described by Beaver (ibid.) can be directly related to the research issues in Chapter One. International accounting diversity is an essential term as the research issues are stated. It can be related to the concept of standardization of accounting. It may be a problem for stock market users if accounting is not standardized when they attempt to compare the value creation process in different companies. Thus, it is now possible to define the term of international accounting diversity more precisely, as follows.

> *International accounting diversity exists when there is more variation in accounting practice between countries than within them.*

Within the research field where accounting and constructs are compared, market-based accounting research (MBAR) is dominant. Overviews of MBAR are provided, for example, in Foster (1986), Beaver (1989), Lev (1989), and Ball and Kothari (1994). Two important early studies in the field are Ball and Brown (1968), who found significant associations between earnings and stock returns, and Beaver (1968), who found that absolute stock returns are affected by earnings releases. Since then, a large number of studies have been undertaken in the field. A common theme is the attempt to link accounting numbers (usually earnings) to stock market measures (usually returns) through statistical methods. This is based on the assumption that earnings and returns are both affected by the same underlying states of nature (Beaver, 1989, p. 104).

Two different views can be taken on this relationship. The first view, which we call the information perspective, is that research is focused on measuring the impact that the release of accounting information has on stock prices. Thus, earnings are assumed to provide information about states of nature *before* the states are reflected in the stock price. This view is especially apparent in short-window event studies (Watts and Zimmerman, 1986, pp. 87-88), but is generally taken in studies where stock returns is measured in terms of cumulative abnormal return (CAR). The view can also be taken in non-CAR studies, as indicated below.

The second view, which we call the valuation perspective, is that the researcher compares accounting measures (assumed to be a measure of value) to other measures of value. These other measures must be exogenous to the accounting system. In this way, a benchmark is obtained against which to evaluate accounting numbers. This view is less common in the literature, but can be implied from recent developments, as discussed below.

The information perspective has been dominant within the MBAR field since its inception. One problem, however, is that earnings have consistently been shown to have a low explanatory power for stock returns (Bernard, 1989; Shroff, 1995). The explanatory power does not increase with more sophisticated statistical methods, but has remained relatively constant since Ball and Brown's initial study in 1968 (Lev, 1989).

Partly in response to these problems a shift in emphasis occurred with Easton and Harris (1991), and Easton et al (1992). Both of these studies are empirical, and the modeling underlying them is formalized in Ohlson (1990; 1995), and Feltham and Ohlson (1995). The importance of this shift is indicated by Bernard (1995), and Lundholm (1995). Interestingly enough, the Ohlson-Feltham framework is partly based on work that preceded the entire MBAR field, namely Edwards and Bell (1961). Edwards and Bell espouse the view (ibid, p. 25) that accounting numbers ideally should reflect market values, which could include stock market measures. Thus, they clearly take the valuation perspective.

In short, the shift in emphasis is based on a change in modeling stock returns. Before Easton and Harris (1991) stock returns used are generally abnormal returns, that is they are adjusted for movements in the general market index. Thus, CAR is the dependent variable studied, while accounting earnings is the independent variable. Then, accounting is evaluated based on how useful it is to help stock market investors beat the market index. Easton and Harris (1991), on the other hand, define stock returns in terms of return on investment, by using beginning period stock price as the investment. This is then related to return on investment as measured by accounting earnings. The new approach allows analysis based on the valuation perspective, without necessarily precluding the information perspective.

Thus, in the theoretical work by Ohlson-Feltham, and the empirical work by Easton and Harris (1991), both the information and the valuation perspectives can be taken. Harris himself uses the term 'value relevance' of accounting earnings in later works (for examples Harris et al, 1994), which implies that the information perspective is taken. However, in Easton et al (1992), the valuation perspective is clearly taken. Easton and Harris' (1991) methodological development is directly applied in a statistical study in this dissertation, and is discussed in more detail in the methodological part of the dissertation. In analyzing the results from this statistical study in the dissertation it is possible to take either of the two perspectives, and implications of both perspectives are also discussed in the analysis part.

Here, we can note that Ohlson-Feltham[11] make a theoretical link between financial theory and accounting. From cash flow-based financial theory, they develop a model which incorporates accounting earnings into the valuation of equity securities. According to this model the value of a company can be estimated from a forecast of accounting earnings over a limited period (such as, say, five years).

Whereas Ohlson-Felthem focus on earnings as an aggregate measure, Fairfield et al (1996) give evidence on the usefulness of disaggregate earnings. According to that study, the entire income statement (disaggregated) contains more information about the future value of the firm than the earnings number alone (aggregated). In addition, Ou and Penman (1989) indicate that many different financial statement items are useful for predicting future value, not only income statement numbers.

In summary, we have a theoretical world, where stock market investors and analysts can be expected to use accounting information, and to attempt to forecast this information a few years into the future. In addition, they are expected to use the entire financial statements, rather than focusing only on aggregated summary measures. This is useful for the analysis of interviews and reports done in Chapter Eight.

The second research field for studying the relevance of accounting is focused on what actors in the accounting system actually do, on a micro-level. For stock analysts, this method is suggested by Schipper (1991), which is further discussed in Section 2.4. Overall, however, the method has been used more in the field of management accounting, where examples of the approach include Polesie (1976), Ims (1987), and Johansson (1989). This approach is used in Chapter Eight of this dissertation

The third research field for the study of relevance of accounting is to look for how accounting is used to create meaning in individuals. Many such studies and research discussions have been published in the management accounting area (for example Dent, 1991; Boland, 1993. This method has not been used as much in the area of financial reporting. There are, however, some examples where the relationship between accounting and meaning is studied - or where such studies are proposed - on a high level rather than for individuals (Bergevärn and Olson, 1987; Artsberg, 1992; Perera, 1989; 1994; Enquist and Javefors, 1996). This method is used in Chapter Nine of this dissertation.

[11] Refer to Ohlson (1990; 1995) and Feltham and Ohlson (1995).

As is apparent, this section contains substantially more material about MBAR, than about the study of actors on a micro-level or about accounting and meaning. This is because MBAR is a developed research paradigm, which is partly deductive. Thus, structures are available in the literature when new studies are undertaken, and these structures are discussed in this section. The other two methods, however, are more empirically based, in the sense that the structures used in the analysis are largely developed from the empirical material itself. This is related to the previously noted methodological distinction between mainstream and interpretative accounting research, that is between variables defined before the analysis, and developing variables during the analysis. When variables are developed during the analysis, the literature used is general and methodological rather than field specific, and therefore less is included about the last two methods in this sections.

To conclude, the issue of relevance of accounting on stock markets is studied in three different ways in the dissertation, each of which can be related to a field of prior research.

2.2. Financial Economics

The field of financial economics includes research on stock markets, and therefore has potential relevance for this study. Financial theory is used in three ways in this dissertation. First, it is indirectly used in the statistical studies, since MBAR (Section 2.1) is built on financial theory[12]. Second, it provides a theoretical framework for what incentives we can expect capital market actors to have, which is useful in micro-level studies of such actors. Third, it is used in an attempt at developing models for financial analysis in a capital market setting.

Regarding finance theory as a framework for the studies in this dissertation, three aspects are emphasized. These are market efficiency, the roles of risk and return, and portfolio selection.

Information efficiency for capital markets is defined by Fama (1970) to hold when information is immediately impounded in prices. Specifically, the efficient market hypothesis (EMH) states that this holds. Empirically, it does seem to hold, at least in the semi-strong form (Watts and Zimmerman, 1986). Thus, stock prices reflect all public information that is available, but not pri-

[12] The relationship between MBAR and finance theory is not covered in this section. It is covered in Foster (1986), Beaver (1989), and, with a higher level of complexity, in Ohlson (1990). The relationship is also apparent in Fama and French (1992).

vate information. The same seems to be true also on the Stockholm Stock Exchange, as shown by Claesson (1987). Even though some research papers have indicated empirical anomalies in EMH (Bernard and Thomas, 1990; Ball, 1992), it appears to be difficult in practice to earn abnormal returns from utilizing the anomalies.

As pointed out in Ball and Kothari (1994, p. 9), EMH does not imply that analysts cannot add value to the investment process. Rather, we can conclude that they should use public information in order to create private information, that can then be used to earn abnormal investment returns[13]. This is an important point for the analysis in Chapter Eight, where an attempt is made at modeling what analysts actually do. The implication is that they cannot use simple, mechanistic models in order to add value to the investment process.

Further, EMH would predict that the amount of disclosure provided by companies is more important than the format of the disclosure (Beaver, 1989, p. 153). International accounting diversity can have an impact, insofar as actors from other countries can have difficulties with interpreting public accounting information, even though domestic capital markets are efficient. Thus, the research issues still have potential relevance, even in a world were EMH holds.

In financial theory, investors are assumed to weigh risk and return in their choice of investment objects (Huang and Litzenberger, 1988). In empirical research, this is operationalized as investors trying to maximize monetary return, while minimizing expected variability of the return. If all individuals have such preferences, statements can be made about expected structures on a capital market level. Based on a number of simplifying assumptions, Modigliani and Pogue (1974) presented the market model, in which risk is defined as variability of returns for individual securities in relation to market variability. It is based on work by Sharpe (1964).

The framework of maximizing return and minimizing risk is used in Chapter Eight to provide a structure to the behavior of analysts. The formalizing of the framework by Sharpe, and Modigliani and Pogue, is used in Chapter Ten to help develop theoretical models for financial analysis.

The framework of risk and return was also used by Markowitz (1952) in developing a model for investors' portfolio selection. He showed that diversifi-

[13] Abnormal investment returns are returns that exceed the market index. Information that is efficiently impounded in stock markets cannot be used to consistently earn abnormal returns, that is to consistently earn returns that exceed the general market index (adjusted for risk).

cation of investments is beneficial for investors, as long as the variability of investment opportunities are not perfectly correlated.

This is important for predicting behavior of both investors and companies that issue securities. Under the assumptions that stock markets are not perfectly correlated across national borders, investors have incentives to invest outside their home countries. Further, investors are willing to pay a price for overcoming accounting diversity, at least to the extent that it is outweighed by the benefits of international diversification. This forms the background to the research issues in Section 1.1, and gives the issues potential relevance. In addition, these ideas are used in the micro-level study of stock market receivers of accounting.

Companies have similar incentives. They want to attract international investors, since this will lower their capital costs. This is because such investors receive positive diversification effects, and are therefore willing to accept a lower expected return. Thus, companies are willing to incur expenses in adapting their financial reporting to the needs of international investors. This framework is used in the study of senders of accounting information.

The third way in which finance theory is used in this dissertation is in attempts to develop models of financial analysis. One aspect of finance theory that is of interest here is the assumption of institutional irrelevance (Ball and Smith, 1992, pp. 1-2). Since many of the theories are developed assuming zero transaction costs, institutions are not relevant. An example is the irrelevance of corporate financial policy (Stiglitz, 1974). This also affects accounting, in that there is no theoretical justification for accounting when there are no transaction costs (Ball and Smith, 1992, p. 3). Thus, some modification of the assumptions is necessary when modeling financial statement analysis in a finance theory framework. Potential modifications based on empirical results are suggested in the concluding discussion of the dissertation, that is in Chapter Ten.

2.3. International Accounting Research

The last two sections in Chapter Two (Sections 2.3 and 2.4) are more directly related to the empirical field investigated than the previous two sections. The field of international accounting research can be further subdivided. One such division is provided by Haller et al (1998), who focus on financial reporting rather than management accounting. They suggest the following classification:

1. Individual country studies.

2. Comparative studies of more than one country.
3. Analysis of the reasons behind international accounting diversity.
4. Classification of national financial reporting systems.
5. Evaluation of accounting harmonization.
6. Study of the impact of international accounting diversity.

As is evident from the research issues in Section 1.1, the sixth field is closest to this dissertation. However, several of the other five fields also have some relevance, and all fields are covered in turn below.

Individual country studies are used in this dissertation to provide a background to the actual studies. Country studies tend to be rather descriptive. They can include description on several levels, from rules followed in practice, to national views on financial reporting systems. The former level is used in Section 4.3, while the higher levels are used in Section 4.4. Examples of useful studies include Gordon and Gray (1994), Ordelheide and Pfaff (1994), and Jönsson and Marton (1994). Those studies cover the UK, Germany, and Sweden, respectively.

The next step of analysis is to study more than one country simultaneously, and thereby do comparative studies. As with country studies, comparative studies can be done on different levels. The comparative analysis of different rules is the most straightforward level, and it is also the most developed (Oldham, 1981; Peller and Schwitter, 1991; Alexander and Archer, 1992). These studies are of a descriptive nature. Differences in rules may result in differences in practice. Weetman and Gray (1991) show that there are differences in net income when different national frameworks are used. Kim (1996) shows the existence of differences based on a study of annual reports from different countries. Differences in accounting regulation are indicated by Puxty et al (1987), Bloom and Naciri (1988), Agrawal et al (1989), Willmott et al (1992), and Flower (1994). The existence of differences in practice forms the background to the entire dissertation, since it makes the research issues relevant and constitutes the background to the entire analysis part of the dissertation.

Above, it was mentioned that comparative studies are done on different levels, from actual practice, to regulatory framework. One can go beyond regulation, to underlying economic, political, or cultural factors. Then we get to the third type of international accounting research, namely the study of reasons for differences. Nobes and Parker (1995) suggest a framework based on economic and political explanations, while Perera (1989; 1994) attempts to use culture as an explanation. This is useful for parts of the analysis in the dissertation.

The study of international accounting diversity on different levels has been used as a basis for classifying national financial reporting systems into groups of countries. Nobes (1992) provides an overview of such attempts, which leads into Nobes' own classification. Nobes' classification is useful in the sense that it gives an indication of the relative distance between the various groups of countries. This property makes it useful for the analysis in Chapter Nine. It should be noted here that the classification presented by Nobes is largely judgmental, and is therefore not very systematic. However, as a stylized fact from which to form research hypotheses it is useful.

One reason why Nobes' classification is judgmental is that it is not easy to measure the distance between different accounting systems. We may be able to conclude that they are different, but how different are they? Is country A more different from country B than country C? This is what is attempted in the fifth type of research, namely evaluation of accounting harmonization. Van der Tas (1988; 1992) has developed an index to measure how close countries are to each other, which is applied by Tay and Parker (1990). Rahman et al (1996) introduce a method for measuring formal (i.e. rule-based) harmonization, and also give an overview of the harmonization literature. A different type of measurement of accounting harmonization is done in a statistical study in this dissertation, based on MBAR methods.

The impact of accounting diversity on actors is, as noted above, the central research field of this dissertation. The two main groups of actors of interest here are producers and capital market users of accounting information. Studies on senders of accounting (that is companies that obtain international capital) include Choi (1973) and Meek and Gray (1989), who both show that companies tend to provide voluntary disclosures when attempting to attract capital internationally. Both studies are based on investigations of companies' own annual reports, which means that the actors are studied indirectly. Studies based on interviews and survey data, where actors are studied directly, are done by Choi and Levich (1990) and Adrem (1997). In the former study, 40% of corporate respondents stated that they are affected by international accounting diversity, while the latter study indicated that companies voluntarily exceed legal disclosure requirements in order to attract capital. Chapter Six in this dissertation covers senders of accounting. It is based mostly on interviews, which is similar to Choi and Levich (1990), but also on annual report studies, which is similar to Choi (1973) and Meek and Gray (1989).

The actors that have received most attention in research are stock market receivers of accounting. Choi and Levich (1990) studied such actors based on

interviews, and it is similar to the analysis done in Chapter Eight of this dissertation. They found that more than half of the investors state that they are affected by international accounting diversity. Meek (1983), one of the first to use MBAR methods in international accounting, found no statistical difference in market responses to earnings produced according to different national rule systems. In the last few years there has been renewed interest to do this type of research. Several examples of papers are given in the methodological discussion in the dissertation, but we can note here that the entire Journal of Accounting Research Supplement in 1993 is devoted to MBAR in international accounting. Applying the Easton and Harris (1991) method, significant differences were found between national accounting earnings in some cases.

To conclude, the existing literature in international accounting research cover the empirical field of interest in this dissertation. We can especially mention Choi and Levich (1990), who provide a framework. Methodologically, however, ideas are largely obtained from other fields. This is especially true for the analysis in Section 8.2 and in Chapter Nine, while Chapter Six and Section 8.1 are more methodologically traditional within the field of international accounting research. Chapter Seven is, in common with many other recent studies, based on a structured research tradition in accounting (MBAR). For this reason, this Section 2.3 may seem shorter than what would be expected based on the research issues in Section 1.1.

2.4. Research on Financial Analysts

Existing research on financial analysts is an area that is useful in the dissertation. Financial analysts are advisors to stock market investors and they generally make recommendations on which companies to invest in. Since the dissertation involves interviews with financial analysts, prior research in this area is of interest.

Analysts have received interest from researchers since they are seen as a well-defined proxy for capital market users of accounting in general (Schipper, 1991, p. 109). Schipper (ibid.) gives an overview of research on analysts up to around 1990. She also justifies the general idea of doing research on analysts, and suggests that additional research in the field is needed. In this section, we are going to focus on research in three areas. These are what information analysts use, what analysts do when they analyze, and research on the context in which analysts operate.

First, however, we can note that research shows that analysts do add value in the investment process[14] (Abdel-khalik and Ajinkya, 1982: Mear and Firth, 1987; Brown et al, 1987; Kross et al, 1990; Shipper, 1991), and that it is beneficial for companies to be followed by a large number of analysts (Trueman, 1996; Byrd et al, 1996). Therefore, it is potentially interesting to study whether and how they use accounting information.

In studying what information is used by analysts, it should be noted that common analysis methods include fundamental, technical, quantitative, and other. Arnold and Moizer (1984), Olbert (1992), and Vergoossen (1993) all show that fundamental analysis is by far the most common method. This is the method where the most intense usage of financial statements can be expected.

Further, research indicates that financial statements are an important information source for analysts, and that among the different financial statements, the income statement is most important, followed by the balance sheet (Chang et al, 1983; Biggs, 1984; Day, 1986; Olbert, 1992; Vergoossen, 1993; Previts et al, 1994). In order to relate these studies to this dissertation, we can note that both interviews (Day, 1986) and report studies (Previts et al, 1994) have been used. This research area is directly related to Section 8.1, where interviews with analysts and report studies are analyzed.

The next research area to be discussed is what analysts do when they analyze. A relatively detailed model is provided by Bouwman et al (1987). Within this field, there have also been studies of *how* analysts use accounting information (Bouwman et al, 1995), statements by company management (Williams, 1996), and information in general (Elliot et al, 1995). Williams (1996) indicates that there is a role for trust in analysts' evaluation of management statements. This research is directly related to Section 8.2, and somewhat related to the analysis in Chapter Nine.

Analysts are assumed to be affected by their context and the resulting incentive structures, and this assumption has given rise to a research field. To date, the main interest has been in studying effects from analysts' employment arrangements. Studies indicate that the context has effects on how analysts act (Schipper, 1991; Francis and Philbrick, 1993; Dugar and Nathan, 1995; Williams et al, 1996), as well as on how analysts' recommendations are perceived by investors (Hirst et al, 1995). This literature is especially useful for the analysis of the effect of country differences on analysts (Chapter Nine). It is

[14] Adding value in the investment process means that advice from analysts can be used to earn abnormal returns, that is to beat the market index.

also useful as a background to the study of analysts' written reports, since such reports may be affected by analysts' context.