Chapter Ten

Conclusions and Future Research

The intention with this chapter is to summarize and integrate the findings and implications of the various parts of this dissertation. The chapter begins with a summary of the empirical findings (Section 10.1). The integration of the various studies is discussed in Section 10.2, concurrent with conceptual and theoretical implications. Where applicable, Sections 10.1 and 10.2 contain notes on implications for practice from the research findings. Section 10.3 includes comments on the usefulness of an eclectic research method. The chapter ends with a discussion of future research directions stemming from the dissertation (Section 10.4).

This chapter can be related to the three research aims stated in Section 1.2. The empirical findings in Section 10.1 summarize to what extent the empirical part of aim number 1, and aim number 3, have been met. The structure development part of aim number 1, as well as aim number 2, are discussed in Section 10.2.

10.1. Empirical Findings

The research issues are given in Section 1.1, and findings related to these issues are summarized here. The two primary research issues are how accounting is used on the stock market, and whether international accounting diversity has an impact on stock market activity.

Regarding the first of these issues, a model is developed (Figure 8.1) which outlines the company analysis process, and the role of accounting in this process. The model is empirically supported, primarily in Chapter Eight. Further, it is shown that accounting is used as a basis for forecasts, rather than providing future-oriented information.

On the second of the two research issues[119], we can conclude from this study that there is an impact from accounting diversity on stock market activities, based on the following findings:

[119] This research issue is further operationalized in four separate ways in Section 1.3, and the findings are related to these operationalizations.

- It is difficult to say whether senders' choices on which stock market contexts to be present on is affected by accounting diversity (cf. operationalization number 1 in Section 1.3). However, it is shown in Section 6.2.1 that Swedish companies have adapted their accounting reporting to the requirements of non-Swedish stock market users. Thus, the behavior of producers of accounting is affected by accounting diversity. In addition, that section indicates the existence of costs[120] associated with the accounting adjustment.
- In Chapter Seven it is shown that there are clearly significant differences in the value relevance[121] of harmonized and non-harmonized accounting. Thus, as suggested in operationalization number 2 in Section 1.3, senders' choices on content affect the value relevance of accounting numbers. Under the assumption that analysts and investors do use accounting in a way consistent with the statistical models applied, these users are affected by such accounting diversity.
- Many analysts make implicit or explicit adjustments for accounting diversity when they compare companies from different countries (Chapter Eight). Examples of explicit adjustments are given in Section 8.2.2. Thus, their behavior is affected by accounting diversity. It is possible, although not certain, that analysts' ability to compare companies internationally is impeded by accounting diversity (cf. operationalization number 3 in Section 1.3).
- Chapter Nine shows that the analysts' view of the role of accounting is affected by the national context in which they operate. Further, the usage of accounting can be related to national context (cf. operationalization number 4 in Section 1.3). This finding is further supported in Section 8.2.2, where it is indicated that interviewees tend to mention accounting issues that are current in their respective home countries.
- An overwhelming majority of interviewees sees international accounting harmonization as desirable on a general level (Sections 6.2.3 and 8.1.3). This is further supported by the finding that many analysts see it as an advantage that Swedish companies provide a US GAAP footnote (Section 8.1.2). This indirectly indicates that the existing accounting diversity does have - or is perceived to have - an impact on capital market actors.

Consequently, research issue number 2 from Section 1.1 is answered with a yes, i.e. accounting diversity does have an impact on stock market activity. This may seem paradoxical in light of some indications in the empirical mate-

[120] Looking at accounting issues narrowly defined, the costs are considered small by interviewees. However, if legal costs are included as accounting-related, the costs are considered important.

[121] Value relevance is defined in Section 3.2.3.

rial that accounting is of limited importance overall. The apparent paradox is, however, resolved by the findings on research issue number 1, i.e. on how accounting is used. Since accounting is used as a basis for forecasts it can have relevance in the company analysis process, even if it does not provide future-oriented information. The relationship between information about the past and the future is further explored in Section 10.2.

The first two research issues in Section 1.1 are followed by three related issues (number 3 through 5). Issue number 3 is about why accounting diversity has an impact on stock market actors. This issue is rather a theoretical one, and is discussed further in Section 10.2. Issue number 4 is about what forms the impact of accounting diversity takes. This has already been indicated by the summary above, but requires some further clarification.

Perhaps the most obvious form of impact is that producers and users of accounting information adjust financial statements so as to achieve regional[122] harmonization. Such restatement procedures are assumed to lead to costs being incurred, which is explicitly stated by several of the interviewees on the producer side of the accounting system. This form of impact has been studied in previous research, primarily by Choi and Levich (1990).

This first form of impact is studied on an individual actor level. Since it is found, one can assume that the structure of accounting does matter. This assumption leads into the second form of impact, which is diversity in the level of value relevance, and it is studied on a market-wide level. In the field of international accounting, this form of impact has been studied by, for example, Alford et al (1993) and Harris et al (1994).

The third form of impact is the diversity in views on the nature of accounting, which is found to differ among analysts in Germany versus those in the US and UK. With this form we return to an individual actor level. Previous research has focused on diversity in views on a system level, and among producers of accounting (for example Nobes, 1992; Artsberg, 1992). Thus, the finding that the diversity in views carries over to *users* of accounting is relatively unique.

Let us now return to the research issues in Section 1.1, where issue number 5 is whether the impact of accounting diversity is quantifiable. This issue must be dealt with separately for each of three forms of impact. Regarding costs

[122] Regional is used here to indicate that harmonization does not apply to all or substantially all companies, but rather to the companies of interest for the specific capital market actor in question.

for restatement, they are at least theoretically quantifiable. In practice, however, one would encounter substantial measurement problems, and therefore no such attempt has been made in the dissertation. The level of value relevance, on the other hand, is quantifiable, as shown in Chapter Seven. This gives an indirect quantification of the impact of accounting diversity. Regarding views on accounting, it is difficult to see how that can, at this point, be quantified in any relevant manner.

The findings do have some implications for practice, which are divided here into implications for reporting companies, investors and analysts, and accounting regulators. On an overall level, it can be concluded that international accounting diversity is a potential problem in cross-border stock transactions (since there is an impact), but that in practice solutions have been found. The solution consists, largely, of Swedish companies voluntarily translating their financial statements to 'international standards' (US GAAP or IAS)[123].

It should be noted here that the study may overstate the extent to which problems of accounting diversity are solved in practice (i.e. understate the impact of accounting diversity). The study only includes actors that are already involved in international stock transactions. It does not capture actors that want to become involved, but are impeded by accounting diversity. Such actors potentially include investors and analysts that only invest in and analyze domestic companies because they are unable or unwilling to analyze foreign financial statements. However, since the diversity problem is partly solved by companies translating, it is likely that the larger obstacles to international stock transactions are on the company side. The companies included in this study are among the very largest in Sweden. It is possible that even though these companies claim that accounting translation costs are insignificant, this may not be the case for smaller companies. Thus, smaller companies may be impeded from entering an international financial context because accounting translation costs exceed benefits obtainable from cheaper financing (and other possible benefits).

Implications of the research findings on reporting companies have already been covered. To conclude, however, one can note that if companies want to enter an international financial context, it is an advantage if they harmonize their accounting to US GAAP or IAS.

[123] One could argue that this is an efficient approach from the perspective of the global stock market system. This is because transaction costs should be minimized by *one* entity (a Swedish company) performing the translation, rather than many entities (non-Swedish analysts) doing the same task in parallel. Further, information asymmetry is likely to make it more costly for outsiders to translate than it is for companies themselves.

The implications for investors and analysts wanting to engage in international stock transactions is that there are costs associated with international accounting diversity. Further, as shown in Chapter Seven there are - in some cases - very substantial differences in value relevance between accounting numbers generated from different accounting frameworks. Investors and analysts should note, however, that at least part of the costs of accounting diversity are likely to be borne by reporting companies.

Implications for accounting regulators are mostly related to their activities in the area of accounting harmonization. Regulators include both government entities and private-sector standard-setting bodies. Further, they include both national regulators, and international entities working for harmonization, such as the European Union and the IASC.

The fact that there is diversity in accounting, and that this diversity does have an impact, lends some support to the currently on-going harmonization attempts. However, only limited resources should be spent on trying to achieve harmonization, since problems associated with accounting diversity are largely solved in practice. Reporting companies translate their financial statements, and the cost is considered insignificant. Even though the results of this study only apply to Swedish companies, it is likely that the findings are generalizable to other small countries with internationally active companies (as further discussed in Section 6.3).

There are uncertain factors in this conclusion, however, one of which was touched upon above. To the extent that accounting diversity impedes smaller companies from tapping international stock markets, harmonization would be more beneficial than indicated here. There could also be costs associated with accounting diversity that are not picked up by this study, such as a lower quality of comparative international company analysis, which could result in less efficient global stock markets.

There is potentially an additional implication for accounting regulators. In Section 6.2.1, it is shown that interviewees from Swedish companies claim that legal costs constitute a more important obstacle to international stock listings than accounting diversity. Legal costs are especially high for listings in the United States. In one sense, legal costs can be seen as accounting costs, since they are a result of the structure of the accounting system. Thus, the current project of global harmonization promulgated by the IASC and

IOSCO[124] (discussed, for example, in Flower, 1997, and Cairns, 1997) may be partly misdirected. Even if accounting principles harmonization will be achieved, the legal costs will remain. This could have implications for the long-standing US debate between the SEC[125] and NYSE[126] about requiring non-US companies to file US GAAP financial statements (Harris et al, 1994, pp. 187-188). NYSE may not have focused on the main obstacle to the listing of non-US companies, which could be legal costs.

Additional implications for regulators attempting to harmonize accounting come from the findings in Chapter Nine. Previous research on international diversity in views on accounting has mostly tried to find explanations by assuming goal diversity among actors in accounting systems. Chapter Nine shows that a diversity in views can be found among analysts, even though they have more or less homogenous goals. Both US/UK and German analysts are assumed to want to predict future returns of stocks as accurately as possible. In addition, German analysts are influenced by theories and methods developed primarily in the US. The diversity may instead be explained by institutional factors, which is further discussed in Section 10.2.2.

Once we conclude that there are differences between countries that are not likely to disappear solely by homogenizing the global economic environment, the implication for regulators is that these differences may impede harmonization[127]. There are indications of unforeseen obstacles to true harmonization (see e.g. Flower, 1994, pp. 18-20), and the diversity in views may be one explanation. Thus, in order to achieve true harmonization, one would have to both obtain a better understanding of the differences (which is begun in Chapter Nine), and devise ways to overcome them.

As noted in the beginning of this section, there are empirical findings in the dissertation that relate to what analysts do when they analyze companies (further conceptual modeling of these findings is done in Section 10.2). Thus, the study may contribute to our knowledge of how accounting is actually used on a micro-level, as suggested by Schipper (1991).

The suggested overall analysis process is shown in Figure 8.1. Of primary interest here is the role of information in the process, especially information obtained from annual reports. In Figure 8.1, information from annual reports

[124] International Organization of Securities Commissions, i.e. the organization for securities market regulators.
[125] Securities and Exchange Commission, which is the US securities market regulator.
[126] New York Stock Exchange, which is the largest stock market in the US.
[127] A similar argument is advanced by Macharzina (1988).

is divided into financial statements and other annual report data. A closely related but slightly different division can also be used. One type of information is accounting numbers, where the performance and financial status of a company is quantified. This relates directly to financial statements. Another type of information is qualitative, such as information on company management and corporate strategy. This is mostly related to other annual report information, but may be abstracted from financial statements as well.

The discussion below is focused on the quantifiable type of information, in which accounting numbers are important per se. However, before discussing that, we note that the corporate governance category developed in Section 9.1 includes analysts who use both financial statements and other annual report data primarily to evaluate company management. The hard data and soft data categories, on the other hand, do focus on the actual numbers in the financial statements. Since 14 out of 15 analysts are classified into the hard or soft data categories, almost all interviewees do use financial statement numbers.

Figure 8.1 gives an overall model of the company analysis process. More specifically, when current financial statements are used for forecasting future financial statements, the current ones are used as a *basis* for future ones. Thus, future financial statements are forecast through an estimate of *changes* to current financial statements. This is empirically supported in Sections 8.1.1 and 8.2.2, by both interviews and report studies. From this, one can conclude that even though published financial statements do not provide information about the future, they still have a very important role in the forecasting process. In addition, a subsidiary function of published financial statements is the evaluation of the quality of past forecasts made by analysts.

When financial statements function as a basis for forecasts, it does matter how well they measure the performance of the company. This leads into the concept of accounting risk[128]. When analysts use financial statements as a basis, they must, explicitly or implicitly, be aware of the risks resulting from the potential for low quality of the numbers they use. That this is actually perceived by analysts is supported by Sections 8.1.1, 8.1.2, and 8.2.2.

In the empirical material, there are some indications on what is important in financial statements. First, among different accounting numbers, earnings are of particular importance, since the company valuation process is largely driven by earnings. Second, in evaluating the quality of financial statements, analysts see lack of disclosure, or the use of creative accounting principles, as warning signals.

[128] This concept is introduced in Section 1.3, and is discussed in depth in Section 10.2.

This line of reasoning leads directly to implications for practice of the modeling of the company analysis process. Since analysts see lack of disclosure or creative accounting principles as indications of a low quality of financial statements, companies will pay a price for those types of activities. This means that analysts, and assumedly investors, will be less willing to use such financial statements, which is likely to lead to higher financing costs for the company. Consequently, market forces give strong incentives for accounting disclosure.

Another implication is that, if this research area is further developed, modeling of how analysts and investors actually use accounting will provide important insights for companies and standard-setters. It will help them better predict the effects of different accounting choices made, both on the company, national, and international, level.

10.2. Conceptual and Theoretical Implications

This section has two aims. One aim is to answer research issue number 3 from Section 1.1, which is *why* accounting diversity has an impact on capital market actors. In answering that, issue number 1 is also discussed, i.e. how accounting is used on the stock market. The second aim of this section is to integrate, to the extent possible, the various studies of the dissertation into a unified conceptual framework.

Stated differently, this section provides a link between the various empirical results and theoretical research implications of the dissertation. A structure is suggested, which is based on the empirical findings. From an accounting research perspective, it is useful to have a clearer understanding of how accounting information is processed by users. This goes to the core of the broader issue of how and to what extent accounting is relevant for its users.

The dissertation is integrated through the use of the concepts of actual and perceived accounting risk, which are initially mentioned in Section 1.3. It should be noted that these concepts are not just tools for structuring the empirical material, but can be seen as research results in their own right. The nature of these concepts is developed further in this section. In addition, suggestions are made at relating each of the concepts to an existing theoretical framework. Actual accounting risk is tied into finance theory, while perceived accounting risk is tied into institutional theory.
The two concepts are based on the model in Figure 8.1, in which accounting information is used as a basis for forecasts. At issue is the reliability of the

basis. One can focus either on quantifiable reliability, or on users' perception of reliability. The former is called actual accounting risk here, while the latter is called perceived accounting risk. These two concepts are discussed in turn below.

Before focusing on these measures, however, a justification for their development might be in order. Is there, for example, support in the empirical material for the usefulness of the concept of accounting risk? In Section 10.2.3, it is shown that accounting risk is useful as a tool for understanding the findings in Chapters Six through Nine. Conversely, this suggests that accounting risk is supported by the empirical material, as it constitutes a usable research model.

A separate issue is whether it is relevant to divide accounting risk into actual and perceived. The way these two concepts are defined, analysts cannot distinguish between them in practice. Instead, analysts are faced with what we may call estimation risk, which may be either actual or perceived. However, the two concepts are still useful for research, since they highlight different aspects of the estimation risk found in practice. Even if actual and perceived accounting risk are not ex ante distinguishable, they can still be separately observable in ex post research studies.

10.2.1. Actual Accounting Risk

We begin with actual accounting risk. First, we assume that accounting information is used as a basis for forecasts. In addition, it is assumed that users focus on earnings, and that other accounting information is useful to the extent that it gives additional information about the nature of the earnings number. These assumptions are discussed in Section 8.2, and they are supported by the empirical material. An additional assumption is that there exists a measure that is exogenous to the accounting system, which accounting earnings try to measure. This assumption will be discussed more below, since it is not obvious what such a measure should be. For the time being, the measure is called 'economic income'.

With these assumptions, actual accounting risk is defined as:

The variability of accounting earnings in relation to economic income.

Only unbiased variability is of interest here. This is because any systematic bias of accounting earnings in relation to economic earnings becomes a scaling issue, that is easily adjusted for by accounting users. Systematic bias

could be caused, for example, by conservative accounting. In other words, actual accounting risk corresponds to white noise variability of accounting earnings around economic income.

A different way to think about actual accounting risk is to relate it more directly to the way accounting is produced in practice. 'Economic' measures are not used in accounting. Instead, all accounting measures are based on arms-length exchanges (either past or future) with external parties (Kam, 1990, p. 47). Thus, actual accounting risk is minimized when economic income is measured as well as possible within the constraints of exchange-based accounting.

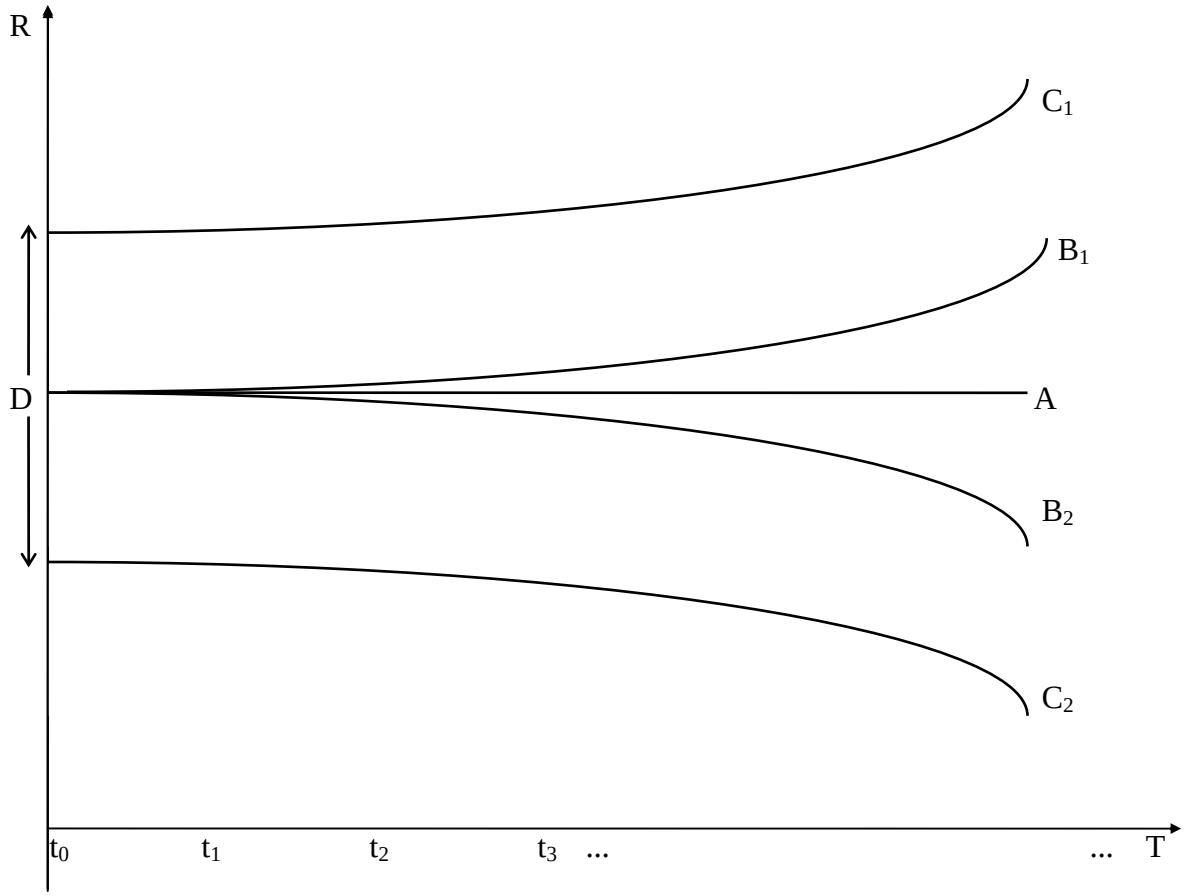

Figure 10.1. Variability of expected return.

Once actual accounting risk has been defined, we turn our attention to the effects of such risk on investors (and analysts). First, investors are assumed to be strictly risk-averse, that is they require higher expected return for higher-risk investments. Second, higher actual accounting risk increases the overall risk of a stock. Consequently, there should be a positive correlation between actual accounting risk and expected stock return, and a negative correlation between actual accounting risk and stock price. The way in which

the existence of actual accounting risk increases the overall risk of an investment is shown in Figure 10.1.

In the figure, time is on the X-axis and expected future return is on the Y-axis. A indicates the mean value of expected future return. Expected variability (or uncertainty) in A will increase with T. B_1 and B_2 show some measure of this variability, for example the expected value of one standard deviation. An important property of the curves B_1 and B_2 is that they start at A at t_0. This indicates that there is perfect knowledge about the level of return existing at that time.

Curves C_1 and C_2, on the other hand, represent expected variability when there is not perfect knowledge about the true level of earnings (or economic income) at t_0. At this time, C_1 and C_2 indicate one standard deviation of expected variability, and the current level of earnings is given as a range (indicated by D). As is evident from the figure, the risk is higher at any given time when there is uncertainty about the present. It should be noted that investors use expected earnings and expected variability in their estimation of the values of stocks.

Figure 10.1 implies something about how investors use accounting information. Rather than providing actual information about the future, accounting reduces uncertainty about what happened in the past (and present), cf. Edwards and Bell (1961, p. 1). Note that since investors forecast *changes* in numbers rather than absolute numbers, this information about the past is still essential as an input in their forecasting activity. Consequently, when information about the past or present is released, it may alter beliefs about the future, which is why significant results (although with low explanatory power) are obtained in event studies[129]. This framework is also consistent with Ball and Brown (1968), in that most of the stock movement can be expected to occur gradually over an accounting period, rather than at the earnings release date. Information about the period is gradually obtained from non-annual report sources. Reported earnings are then used to confirm the effect of the other information, which on average causes a slight correction. This correction is picked up in event studies, and, as expected, the explanatory power of earnings in those studies is low (cf. Lev, 1989).

There are two issues that are touched upon above, that need to be discussed more in depth. These are the relationship between risk and return, and the concept of economic income. Each of these are discussed in turn.

[129] Event studies are discussed in, for example, Watts and Zimmerman (1986, p. 87).

Return is the quantity of economic resources afforded by an investment. Risk is often defined as the variability over time of the flow of economic resources. Sharpe (1964), for example, defined risk as the expected variability of stock price in relation to the market portfolio. In the setting of this dissertation we have potential risk (that is variability) at three different levels. These are variability in the value of the stock, in economic earnings, and in accounting earnings. For simplicity, we assume that stock value and economic earnings are perfectly correlated, which enables a focus on the relationship between economic and accounting earnings. This assumption also enables the use of economic earnings rather than security returns in a finance theory framework. It should be noted that the modeling done here is of an intuitive rather than formal nature. Formal modeling is suggested for future research in Section 10.4.

Inspired by finance theory we can assume a two-period economy (Huang and Litzenberger, 1988, pp. 2-3). Investing occurs at time t_0 and returns (or economic income) are earned at t_1. Returns depend on the state of nature at t_1, which is unknown at t_0. In the original model, the state of nature at t_0 is known with certainty at that time. In reality, however, the state of nature at t_0 is estimated using accounting. Thus, the state of nature at t_0 is modeled with a probability function (representing actual accounting risk), just as the state of nature at t_1. In addition, the state of nature at t_0 affects the probability function at t_1, that is there is potential informational relevance about the future in information about the present. In finance theory individuals are assumed to be risk averse regarding variability at t_1, and this also applies to t_0 in this framework.

Note that homogenous expectations can apply in this modeling. What is important, however, is that the homogenous expectations of the state of nature at t_0 can be described by some probability distribution around the true state of nature.

We can also use finance theory to indicate that there is a risk premium for actual accounting risk, if investors are risk averse. First, we assume a situation in which investment alternatives are fixed. There are three securities, one riskless, and two that are risky. The two risky securities have the same economic earnings risk, but vary in terms of actual accounting risk. Further, investors make positive investments in all three securities. Then, applying the reasoning from Huang and Litzenberger (1988, pp. 18-20) investors will invest in the security with high accounting risk only if there is a risk

premium[130]. Since empirically we observe investments being made in securities with different levels of accounting risk, we can assume that such a risk premium exists. This assumption can be tested empirically, which is suggested as future research in Section 10.4.

If CAPM is applied to the line of reasoning provided here, one can think about the extent to which actual accounting risk (AAR) represents unique or systematic risk. Investors are not concerned about unique risk in a CAPM setting. There are two ways of looking at this issue. First, since AAR is constituted by the difference between accounting and an exogenous measure - and the exogenous measure could relate to both unique and systematic risk - AAR can reflect both types of risk. Second, in the derivation of CAPM, certainty about the present is assumed. It is unclear to what extent CAPM is at all applicable to a setting where this assumption is dropped, as is the case when AAR is introduced.

This leads into the second issue to be discussed here, which is the concept of economic income (i.e. the exogenous measure used). This is closely related to value, since future economic income and risk-adjusted discount rate give value. When there is actual accounting risk, value is determined in the following way[131]:

$$V = f(E, ß_E, ß_A)$$

where:
V = Value
E = Economic income
$ß_E$ = Economic income risk
$ß_A$ = Actual accounting risk

The model assumes that an exogenous measure (called economic income) exists, and that it may be different from accounting income. If there is economic income, there is also economic value. Economic value is the intrinsic or fundamental value that investors and analysts try to estimate. While economic income is a flow variable, and economic value is a stock variable, they are basically two sides of the same thing[132]. These concepts are necessary in

[130] Huang and Litzenberger talk about economic risks rather than accounting risk. However, to the extent that actual accounting risk is relevant for investors, the same logic is applicable to this latter measure.
[131] It should be noted that even though ß is used to denominate risk level, $ß_E$ is not necessarily the same as it would be in a CAPM setting.
[132] The relationships between stock and flow variables is discussed, for example, by Hicks (1946).

the model, since accounting risk is defined in terms of how much it differs from them. Economic income is compared to accounting earnings, and economic value is compared to accounting equity. To summarize both concepts we define economic reality as including both economic income and value.

The concept of economic reality is frequently used as a theoretical construct that serves as a benchmark for accounting numbers. The concept of fairness in accounting (Nobes and Parker, 1995, pp. 44-45), for example, implies the existence of some type of benchmark against which to evaluate accounting.

Economic reality is by no means an unproblematic concept, however. It is always a construct, requiring assumptions or conventions in order to limit available choices in its definition. Thereby, economic reality is a relative rather than absolute concept. Thus, in a sense accounting itself is one possible economic reality, since it is based on a clearly specified set of conventions. In spite of these problems, however, economic reality as exogenous to accounting is assumed here.

One popular construct for the estimation of economic value at a certain point in time is to use discounted free cash flows (Samuels et al, 1995, p. 512). Then, (estimated) value equals the (estimated) net present value of future cash flows. Once value at two points in time is determined, value creation (or income) can be defined as the difference in value between the two points in time. Income for a period then equals the net present value of future cash flows at the end of the period, minus the value of cash flows at the beginning of the period (cf. the previous discussion on stock and flow variable). This definition of value creation or income is suggested by, for example, Rappaport (1986, p. 68).

Even though discounted cash flow is less nebulous than economic reality, it is still difficult to use in practice. Therefore, in those cases where economic income and value need to be empirically estimated, stock returns and price may be used[133]. This is based on the idea that stock market measures are the reality that investors actually care about. Investors may want to estimate economic reality, in order to forecast stock prices, but what they really care about (as well as make money from) is how the stock price actually moves. Thus, the stock price itself becomes the relevant reality for market actors.
The testing discussed in Chapter Seven can be analyzed in an actual accounting risk framework. In the testing, stock market numbers are used as a proxy for economic reality. The results in Chapter Seven show that actual account-

[133] There is a risk of circularity in using the stock market as a proxy for economic reality, which is further discussed in Section 10.4.

ing risk decreased with the removal of untaxed reserves. The use of market-based accounting research (MBAR) methods to estimate actual accounting risk is further discussed in Section 10.4.

The change of levels in the empirical testing should be noted. The discussion in this section is largely about actual accounting risk for one single company (or security). The testing in Chapter Seven involves comparing actual accounting risk levels for large groups of companies. In principle, however, MBAR methods can be applied to any number of companies, including one single company. In addition, the conceptual discussion here is applicable to different levels of analysis.

Another example of actual accounting risk is found in the interviews (Section 8.2.2). Some of the German analysts mention that German accounting numbers are less reliable before DVFA-adjustment than after. Reliability, in this case, corresponds to actual accounting risk as defined here. These statements are supported by Harris et al (1994), who, using MBAR methods, find differences in value relevance between adjusted and unadjusted German accounting numbers.

The discussion in this section has some implications for practice. Actual accounting risk does matter, and an initial structure is provided here for estimating such risk. Suggestions for future research in the area are provided in Section 10.4. Investors and analysts may benefit by the fact that actual accounting risk can be made explicit. The material in this dissertation shows that they already implicitly consider such risk.

For companies issuing financial statements the main implication is that they can lower their capital costs by lowering actual accounting risk, since this leads to a lower risk premium in the market. Such reasoning also applies to standard setters, since companies under their regime may benefit from attempts to lower actual accounting risk on a system level.

To summarize, the concept of actual accounting risk potentially adds useful structure, and can thereby help in our understanding of the relationship between accounting and stock markets. As pointed out by Hanson (1958, p. 30) a possible contribution of research is to develop new structures that are applicable to existing phenomena.

10.2.2. Perceived Accounting Risk

Perceived accounting risk is defined in a way that differs from that of actual accounting risk. To clarify the differences, we can go back to the model in Figure 1.1. Actual accounting risk is defined in the content box, since it is based on the financial statements per se, and no consideration of receiver attributes is necessary for its definition. Perceived accounting risk, on the other hand, is defined in the receiver box, since it is based on user interpretation of financial statements. There is also a difference in accounting scope between the two concepts. Actual accounting risk is focused on earnings (and equity, if a balance sheet approach is taken). Perceived accounting risk, on the other hand, may pertain to the entire annual report in the sense that it is affected by the level of disclosure provided.

Perceived accounting risk is defined as follows:

> *Risk perceived by users of financial statements (annual reports) due to insufficient knowledge about the preparation process of the financial statements.*

Thus, perceived accounting risk can be seen as a lack of trust in the system or persons that prepared the financial statements. The lack of trust can occur on separate levels, such as system level and individual company level (Luhman, 1979, p. 22). An example of system level perceived accounting risk would be when users in country A do perceive a higher risk when using financial statements from country B than from their own country. The risk may be perceived regardless of whether actual accounting risk differs between the two countries. An example of perceived accounting risk on an individual company level is simply that users perceive a high risk when using financial statements from a certain company, that is they do not trust its financial statements[134].

It should be noted that perceived accounting risk is a relative, rather than absolute, measure. Actual accounting risk has a base against which to compare, and the base is economic income or value. In the case of perceived accounting risk there is no such absolute base. The relative nature can be illustrated with the example used before. Users in country A perceive accounting from country B as more risky than their home country reporting. Thus, the existence of perceived accounting risk in country B financial statements is noticed by those statements being *more* risky than other statements (country A's statements, in this case). The same relativity applies for perceived accounting

[134] Williams (1996) found that company management can create a reputation regarding their forecast based on the quality of past forecasts. Thus, management creates a type of trust in its ability or willingness to make earnings forecasts.

risk on an individual company level. The risk in one company is only apparent when compared to financial statements of another company.

The way in which perceived accounting risk is apparent in the empirical material in this dissertation may help to further clarify the nature of the concept. The concept is especially relevant in the field of user effects caused by international accounting diversity, since effects of the lack of knowledge of accounting systems are likely to be more pronounced here than in other areas.

In Section 8.2.2 there are strong indications of the existence of perceived accounting risk. For example, analysts are more comfortable with Swedish financial statements if there is information on IAS and/or US GAAP. This additional comfort is achieved even if there is no substantial difference between Swedish and IAS/US GAAP earnings or equity. Thus, it applies even if there are no differences in actual accounting risk. In addition, many analysts in the US and UK express concern about the reliability of German accounting, even though Harris et al (1994) show that there is no significant difference in actual accounting risk between (DVFA-adjusted) German accounting and US GAAP.

Chapter Nine gives some evidence of why perceived accounting risk can arise in the area of international accounting. Since there are fundamental differences in the view of accounting between countries, even among users, there could be problems with cross-country understanding of these views.

The findings in Chapter Nine are especially interesting in light of the fact that financial analysts are likely to have similar objective functions across countries, that is they have the same goals and preferences. In short, they want to give advice that maximizes returns and minimizes risk. In addition, analysts worldwide are likely to have similar educational backgrounds, and to be subjected to similar ideas about investing. National diversity is still apparent, which is an indication of the strength of the national views. It is also an indication that an assumption of social irrelevance does not hold when countries are compared (cf. Whitley, 1991). A finance theory framework cannot be used to explain diversity among financial statement users, since it assumes institutional irrelevance. Neither can a positive accounting theory framework be used, since its explanations are based on individual and organizational goals (which do not vary in this case). Instead, institutional theory[135] provides a potentially usable framework. In this dissertation, institutional

[135] The use of institutional theory in accounting research is discussed at some length in Burns (1997)

theory is only suggested as a framework, without an attempt at an in-depth application of the theory, but it is likely that it would provide a fruitful basis for future research based on the findings in this dissertation (see also Section 10.4).

Studying accounting in its institutional context is not a new idea, but is suggested, for example, by Hopwood (1989, p. 4) and Burns (1997, pp. 3-4). In addition, Hopwood et al (1990, p. 51) point out that accounting is inextricably linked with its context.

Institutional theory could be applicable on different levels of the empirical field covered in the dissertation. On a high level, it could help in structuring various views on why financial markets exist, and what the benefits of these markets are, as well as the role of international investing as a factor in relations between countries. The focus here is on another level, however. The analysis is limited to structuring views on accounting, and the effect such views may have on usage of accounting by stock market users, that is investors and analysts.

A necessary clarification in applying institutional theory is what is actually meant by an institution. In this chapter it is the views on how accounting should be regulated and what form accounting should ideally take in order to maximize its utility for users. These views are assumed to carry over into concrete ideas about what form accounting should take in practice. The concrete ideas are institutions in their own right, and may then be characterized as habitualized behavior[136]. Such behavior is discussed, for managerial accounting, by Jönsson (1997, pp. 14-15). The institutional aspects of both ideas and behavior arise when they become shared by groups of people. In this dissertation the focus is on institutions on country levels, while Jönsson focuses on the company level.

The concept of habitualized behavior can explain a lack of trust in accounting from companies or accounting systems that are not known. Since they are not known by the user, there is no habitualized behavior pattern that can be used to instill trust (cf. Jönsson and Macintosh, 1997, p. 369).

Institutional theory can have three separate pillars (Scott, 1995, pp. 34-35), namely regulative, normative, and cognitive. Existing international account-

[136] Giddens (1979), in an attempt to define the nature of power structures in societies, characterizes institutions as standardized modes of behavior (ibid., p. 97) or reproduced practices (ibid., p. 117). Even though the research issues of interest in this dissertation differ from those analyzed by Giddens, the definition of institutions provided is of interest.

ing research can generally be classified as using regulative and normative pillars, partly because it explains accounting diversity among producers of accounting and accounting rules. Nobes and Parker (1995, pp. 44-57) and Choi and Mueller (1992, pp. 430-433) are examples where the concept of institutionalism is applied in international accounting research, although none of them actually uses the word 'institution'. Possible exceptions, where cognitive pillars are used to explain diversity among producers, are provided by Puxty et al (1987), and Ahrens (1996).

In this section, institutional theory is suggested as an aid in explaining the behavior of users of accounting information. They are not regulated in the way producers are, neither legally nor normatively. Therefore, when diversity among users is noted, cognitive pillars are more relevant than regulative or normative ones.

Another dimension in institutional theory is what the carrier of the institutions is assumed to be (Scott, 1995, pp. 52-55). The empirical studies in this dissertation indicate the existence of institutional diversity between countries, but does not answer the question of what the carriers of such institutions may be. There are, however, some carriers that one could think of as likely. Accounting theory is an example, where the differences between Littleton (1953, from the US) and Schmalenbach (1926, from Germany) can be noted. The fundamental purpose of accounting practice is another example. One could see the US as focusing on combining objectivity and fairness, the UK as focusing more directly on fairness, while Germany focuses on uniformity and tax consequences[137].

Even though the focus in this dissertation is on institutions existing on a country level, they could also be applied on a single company level. Certain results from the interviews with Swedish company representatives (not reported in the dissertation) suggest that there are differences between the five Swedish companies included, that may relate to institutional structures within these companies. For examples of case studies of the role of such institutions in a single company, as well as how the institutions change over time, see Dent (1991) and Bhimani (1993). Dent uses culture as carriers of institutions, while Bhimani uses managerial styles. A study involving several companies in parallel, where corporate identities are seen as carriers, is provided by Polesie (1991).

Institutional theory could provide an explanation for why Swedish companies provide relatively high disclosure levels, as suggested in Chapter Six. It

[137] See for example Radebaugh and Gray (1997), and Nobes and Parker (1995).

could be based on a general view in Swedish accounting, namely that openness is something positive. This is a different type of explanation than the efficiency story, which suggests that disclosure levels are based on pressure from capital market users of financial statements. According to this latter framework, it is efficient for companies to disclose, since it leads to lower capital costs. The latter explanation is based on the self-interest of reporting companies, while the former is based on what people are used to doing.

It is time to return to the concept of perceived accounting risk. Institutional theory can provide a framework that explains the existence of perceived accounting risk in international company analysis. It should be noted, however, that institutional theory potentially goes further, and the framework suggested in this section may be useful to explain more than just the concept of perceived accounting risk. It could be used, for example, to further explore and explain the types of differences found in users in Chapter Nine. Also, perceived accounting risk as defined here is something more than just a "misunderstanding" of actual accounting risk. The two concepts are fundamentally different in that the former is based on users' perceptions, while the latter is defined based on quantified measures. Thus, the latter ontologically may assume a higher level of objectivity than the former.

It should also be noted that the concept of perceived accounting risk ties in with the linguistics literature that is used in this dissertation. Moore and Carling (1982) define the epiphenomenalist view as focusing on how receivers create information from data (see Section 1.3). Perceived accounting risk is one concept that adds to our knowledge in the specific field of how users of financial statements interpret these statements.

Perceived accounting risk as defined in this section has practical implications. If accounting diversity is carried by cognitive institutions on a national level, this has some implications for harmonization. When attempting to harmonize, it may be more important to understand prevalent views of accounting in different countries, than to harmonize detailed accounting rules. True harmonization may not happen until underlying cognitive institutions are harmonized.

For individual companies, the effect of their accounting policy on the perceived accounting risk experienced by users should be considered. To some extent this is already happening, as indicated by Chapter Six. There it is shown that Swedish companies adapt their accounting to the requirements of

international users. This could be analyzed as a means to lower the risk perceived by non-Swedish accounting receivers.

Also, while actual accounting risk says something about recognition and measurement in the primary financial statements, perceived accounting risk has something to say about disclosure, that is the amount of information provided. It is likely that increased disclosure will lead to lower perceived accounting risk (this is indicated in the interviews with analysts in this dissertation). Thus, both on a system level, and on an individual company level, perceived risk can be lowered by an increase in the amount of information disclosed.

The practical implications indicate that perceived accounting risk is something negative for reporting companies. This is true for companies that attempt to attract interest from investors and analysts, since these stock market users are less likely to focus on companies where they perceive a high risk. Even if the risk is not reflected in variability of returns, it will still be important when investors make decisions on where to invest, and when analysts decide which companies to follow and what recommendations to issue.

10.2.3. Integration of the Dissertation

The frameworks discussed in Sections 10.2.1 and 10.2.2 are useful from two separate viewpoints. First, they are findings from the dissertation in their own right. The concepts of actual and perceived accounting risk may be useful as a basis for future research (as discussed in Section 10.4). What the dissertation indicates is that the accounting risk concepts are applicable to the empirical material used in the dissertation. They are, however, likely to be applicable to other areas, and thus to other research studies. These concepts are partly developed based on combining market-based accounting research and research on what financial analysts actually do. Such a combination was suggested by Schipper (1991, p. 106), and it appears to be a fruitful combination.

Second, the frameworks are used to integrate the various parts of the dissertation. There are four operationalizations of the research issues to integrate (Section 1.3), as well as two separate research methodologies (Table 3.2).

As is apparent from the previous two sections, the concepts of actual and perceived accounting risk do exhibit certain fundamental differences. The two concepts emanate from the same idea, however, which is that financial statements are used as a *basis* for forecasts of earnings. Then, reliability (cf.

FASB, 1993, p. 28) of accounting information about the past (and present) is important. Reliability is identified here as inverse risk, and its identification is done in two separate ways. Thus, actual and perceived accounting risk emanate from the same idea, even though no attempt is made here at integrating the way in which the concepts are developed. Thus, an integration of finance and institutional theory is not attempted. Rather, the concepts are useful in illuminating two different aspects of the way in which accounting is used by stock market investors (and analysts).

The empirical field of international accounting is conducive to the development of the accounting risk concepts, and thus to further our understanding of the relevance of accounting. This is because in the international accounting field, system level diversity exists, which can be used to gauge effects on actual and perceived risk (cf. Øyen, 1990, p.4, who claims that diversity, and the comparisons it enables, is necessary for gaining knowledge in social research).

We begin the actual integration of the dissertation by attempting to relate the four research issue operationalizations from Section 1.3 (as used in Chapters Six through Nine) to accounting risk. The chapters where the concepts of actual and perceived accounting risk are applicable are shown in Table 10.1.

Table 10.1. Applicability of actual and perceived accounting risk to analysis chapters

Chapter	Actual accounting risk	Perceived accounting risk
Six	Applicable	Applicable
Seven	Applicable	Not applicable
Eight	Applicable	Applicable
Nine	Not applicable	Applicable

There is a two-way relationship between the analysis chapters and the accounting risk model. Thus, the model is not only applied in understanding the analysis, but is also developed from the analysis itself. The main features of the model are developed in Section 8.2, and the entire Chapter Eight provides evidence of the existence of both actual and perceived accounting risk. Chapter Six increases our understanding of how reporting companies respond to accounting risk of both types. Chapter Seven suggests that actual accounting risk can be quantified on a system level. Chapter Nine, finally, helps us understand what forms perceived accounting risk can take on a national level.

The accounting risk model is not only developed from the analysis chapters. It can also be applied in trying to understand the results. Many of those appli-

cations are noted in the previous two sections, but a summary and further discussion are provided here.

In Chapter Six, the fact that Swedish companies adapt to accounting requirements of international capital market users can be analyzed in terms of actual accounting risk. Companies lower their actual accounting risk, and thereby achieve lower capital costs. Lower capital costs can also be attained through a lowering of perceived accounting risk. This effect may result if international users prefer harmonized accounting, even though harmonized accounting does not give a fairer presentation of the company than does traditional Swedish accounting.

A more in-depth analysis of Chapter Six can be performed using institutional theory, as is suggested in Section 10.2.2. Using the example of high disclosure levels noted for Swedish companies, two different views are applicable. First, Swedish companies may recognize the existence of national institutions in international accounting, and have therefore largely chosen to leave the Swedish institutional context. This is done in order to facilitate for international users, and is achieved, for example, through a high disclosure level[138]. Since these companies have entered an international institutional accounting context, they do not have any problems with international accounting diversity. Second, Swedish companies may be affected by institutions in Sweden, and act accordingly. One such Swedish institution could be the notion of relative openness to the public, which could explain the high disclosure level of some Swedish companies. Further research is necessary in order to distinguish between these two effects.

In Chapter Seven, the concept of actual accounting risk answers some unresolved conceptual issues with the research method used. If the statistical method measures actual accounting risk, it gives conceptual guidance, which in turn can be used for more specific methodological refinement. For example, when measuring accounting risk, 12-month rather than 15-month windows should be used. This is because 12-month windows focus on how accounting reflects stock market movements (the valuation perspective, cf. Section 2.1), while 15-month windows focus on the information provided to the market by accounting (the information perspective in Section 2.1). Thus, actual accounting risk may be quantified through estimation of the contemporaneous association of accounting and stock market data.

[138] Many international investors in Swedish companies are located in the US and UK, two countries with a tradition of high disclosure levels (Choi and Mueller, 1992, pp. 421-422). In addition, high disclosure increases the likelihood that international users will find the specific piece of information that they are concerned about.

In Chapter Eight, the accounting risk model is directly applied in the analysis. In that chapter, the operationalization of the research issue is whether users are affected by accounting diversity when comparing companies internationally. The accounting risk model helps illuminate the deeper, underlying issues, such as *why* and *how* users are affected by international accounting diversity. Further, Chapter Eight can be seen as the 'other side' of Chapter Six. Thus, it is through the actions of accounting users that companies may lower their capital costs by lowering actual or perceived accounting risk. An additional finding, which is specific to perceived accounting risk, is the important role of trust in company analysis. The existence of perceived accounting can be seen as a lack of trust, either on a system or individual company level.

The results in Chapter Nine are explained, if not by perceived accounting risk, at least through the further development into institutional theory. Users of accounting differ based on what country they are from, since they work in different institutional contexts.

The accounting risk model is also useful in integrating the two research methodologies used in the dissertation, which are pre-defined categories and the generation of categories. As noted, the model achieves some integration of all four analysis chapters, which are based on both methodologies. As applied in this dissertation, the concept of actual accounting risk tends to be more closely related to pre-defined categories, while perceived accounting risk is more closely related to the generation of categories (even though there is some overlap). Consequently, integration can be said to be done through the common elements from which the two concepts are derived, which were noted at the beginning of this section.

Accounting risk provides a framework in which accounting based on historic information can be useful in making forecasts about the future[139]. This framework can be used for a further integration of the model presented in Figure 1.1. Senders, who produce the content, provide information that is based in the past. Receivers, who are in different contexts, are interested in future-oriented information. Accounting risk forms a link between these two groups of actors, focused on the past and the future, respectively.

Some limitations of the accounting risk model should be noted. Since it only covers narrowly defined aspects of the usage of accounting in equity valuation, many factors are left out. The way in which companies are valued may

[139]Mellemvik et al (1988, p. 104) note that the traditional view of accounting is that it should function as a bridge between the past and the future by reducing uncertainty.

exhibit substantial variation across stock markets (Choi and Mueller, 1992, pp. 430-433). Also, there are structural changes over time in each market, as well as valuation changes related to non-company specific variables, such as interest rates (Beaver, 1989, p. 109). All such factors are left out in the accounting risk model, which consequently only explains a small part of the company valuation process. Still, it may contribute to our understanding of this process, especially pertaining to the role and relevance of accounting.

10.3. Methodological Implications

This dissertation has two separate types of methodological implications. First, there are methodological developments related to the specific research area covered in the dissertation. Second, based on the dissertation, statements are made on the issue of applying several research approaches to one topic, and of integrating results in such a setting.

Two methodological implications of the first type are based on the analysis in Chapters Seven and Nine, respectively. Chapter Seven shows that the statistical analysis applied is useful for measuring effects of accounting harmonization. In addition, the method is useful in a small capital market setting. The latter point is important since the method is developed in the United States, where stock markets are substantially larger than in Sweden (see Table 4.6).

In Chapter Nine, it is shown that it is possible to classify financial analysts based on their views on the nature and purpose of accounting. This method can be applied in other research settings involving actors in the accounting system. In addition, the very categories developed in Chapter Nine might be generalizable to other accounting research settings. The categories may be useful since they are both narrow and mutually exclusive.

The second type of methodological implication from the dissertation is based on both the use of four separate operationalizations of the research issues (Section 1.3), the application of three different research methods (interviews, report studies, and statistical studies) to one empirical area, and the use of two research methodologies in the analysis. There is a cost with using an eclectic approach, for example the extra effort involved in becoming familiar with several research traditions rather than only one. What is done below, is to point out what is gained by making this extra effort.

The value of separate operationalizations can be seen when comparing the results in Chapters Eight and Nine. In Chapter Eight, the focus is on variability in accounting, while analysts are assumed to be constant across individu-

als. Thus, results are obtained on how analysts are affected by accounting diversity in conducting their analysis. In addition, an understanding of how accounting users analyze companies is obtained. In Chapter Nine, on the other hand, the focus is on variability in analysts, while accounting is assumed to be constant. Consequently, results pertain to fundamental differences in the view of accounting and its regulation among analysts. It should be noted that the analyses in Chapters Eight and Nine are both based on the same empirical material, namely protocols from fifteen interviews with analysts and ten reports issued by analysts. Consequently, we can conclude that it is possible to illuminate very different structures in one set of empirical material by varying the specific research issues studied.

There are some fundamental differences between the three research methods used in the dissertation. The statistical study measures a relationship between selected variables for the chosen sample. These variables are well-defined and quantified. In order to obtain quantifiable evidence it is necessary to make simplifying assumptions, and to formalize the empirical reality studied. Thus, what is being proven is limited in scope. In addition, the statistical studies involve a higher level of abstraction, since conclusions are based on a set of assumptions. As pointed out by Hanson (1958, p. 56), theoretical constructs are necessary in order to find the type of apparent cause-effect relationships that constitute the findings from the statistical studies.

Based on the interviews and report studies, on the other hand, it is possible to make broader statements regarding the behavior of actors. In return, the analysis process cannot be specified as in the statistical studies, and is therefore less explicit. Rather than proving relationships between variables, interviews and report studies indicate the reasonableness of various interpretations. Interviews and report studies are more concrete, as they are based on a direct study of actors and their products in the empirical area of interest. To summarize, the advantage with the statistical study is that conclusions are well-founded, while the advantage with the other two studies is the higher level of creativity that they enable.

The use of many-valued logic in the dissertation has potential benefits for the research process. The more creative parts of the dissertation may be useful in promoting scientific progress (cf. Kuhn, 1970, p. 52). Further, since the methods have fundamental differences, they help the researcher make the differences explicit. In other words, it is easier to notice the relativity of scientific knowledge when one is directly faced with it in the context of one dissertation. This, in turn, may lead to increased depth and relief in the analysis.

Another point is that since the methods partly focus on different aspects of the empirical material, the researcher has a higher chance of discovery than if only one method is used. That is, the context of discovery is more conducive to actual discoveries being made. To the extent that theories and methods applied 'frame' the research findings, a variety of approaches increases the likelihood of discoveries. Hanson (1958, p. 90) claims that theories help researchers make sense of observations, rather than theories being based on observations. Popper (1979, pp. 71-72) claims that knowledge cannot be distinguished without pre-existing knowledge, or theories. Thus, the argument put forward in this section, that an eclectic approach advances discoveries, is supported.

Examples of discoveries made in the dissertation based on the eclectic approach can be given. The model developed in Section 10.2 involves both actual and perceived accounting risk. The statistical study, supported by relatively rigorous methods, is helpful in defining the concept of actual accounting risk. The interviews and report studies, as they are analyzed in Chapters Eight and Nine, are useful in developing perceived accounting risk.

The model of actual and perceived accounting risk leads into a more specific example (referred to in Section 10.2.3), which has to do with the analysis of the behavior of Swedish companies in Chapter Six. The fact that Swedish companies voluntarily harmonize their accounting can be interpreted in terms of actual accounting risk. Then, the reason for the harmonization is to decrease capital costs by lowering the accounting risk that investors and analysts encounter. Alternatively, it can be analyzed in terms of perceived accounting risk, and the extension into institutional theory. Using this, the behavior is explained by institutionalized patterns of conduct in the Swedish accounting system. One such pattern could be openness in communicating to external parties.

Another potential advantage with an eclectic approach is that it can make the empirical results stronger. If findings obtained using disparate approaches coincide, the validity of those findings are strengthened, since they are not dependent on specific research approaches. For example, international accounting diversity is found to have an effect on stock market actors using multiple operationalizations, methods, and methodologies (see Section 10.1), and this finding is therefore arguably more firmly supported than if only one research approach were used.

10.4. Future Research

Future research based on findings in this dissertation is suggested in four different areas. First, the further development and empirical testing of actual accounting risk is suggested. Second, the application of institutional theory in understanding accounting diversity on a fundamental level is discussed. Third, a suggestion is made for the study of effects of international accounting diversity for performance evaluation within companies, rather than just in companies' communications with investors and analysts. Fourth, more specific extensions of studies carried out in the dissertation are suggested.

In Section 10.2.1 the concept of actual accounting risk is developed and defined as an additional risk factor in a finance theory framework. Two research tasks emanate from such an approach, involving theoretical formalizing and empirical testing, respectively.

Existing theory in finance could be used as a basis in formal modeling of actual accounting risk. The addition to existing theory lies in the introduction of an accounting risk variable. Such a theoretical development could have three separate advantages. First, formal modeling facilitates empirical testing of the concept of accounting risk. Second, it adds structure to existing financial theory, which in turn could make such theory more aligned with empirical observations. Third, it provides additional conceptual understanding of findings obtained in market-based accounting research.

In Section 10.2.1 it was posited that the level of actual accounting risk corresponds to a risk premium demanded by investors. Thus, one would expect to see higher expected returns for high accounting risk companies, the 'investment' risk being constant. This hypothesis can be tested empirically by using historic accounting and stock return data. A possible test would be to use the approach developed by Easton and Harris (1991, which is also used in the statistical study in this dissertation). Thus, one would hypothesize that companies with a lower historic association between earnings and stock returns would have a higher historic return. An issue that needs to be addressed is the apparent circularity resulting from having stock returns as both the dependent variable, and part of the calculation of the independent variable. This may not be a problem if the effect of actual accounting risk on price is a simple scaling effect - that is it systematically biases the dependent variable - since we are interested in measuring the correlation between dependent and independent variables. The issue needs further consideration before actual empirical tests are performed, however.

Other forms of empirical testing of actual accounting risk could involve interviews with analysts and investors, as well as studies of analysts' reports. Such testing would be more directly focused on finding the effects of actual accounting risk than is the case with the studies done in this dissertation. Either interviewees could be asked directly whether a concept such as actual accounting risk is considered in company valuation, or it could be ascertained indirectly through other questions.

In Section 10.2.2, institutional theory is suggested as a means to analyze perceived accounting risk. Future research could use such a framework to go beyond the descriptive approach taken in Chapter Nine, where the existence of international differences are noted. First, the carriers of the institutions could be identified. Second, one could study how the institutions arise, as well as how they vary by country. Third, the relationship between institutions and actors could be further investigated. All these issues could be addressed through, for example, deep interviews. Such future research based on institutional theory has the potential to contribute to our understanding of why international accounting diversity exists, and what forms it may take. In addition, it could be useful for understanding the process of accounting harmonization, and what is required before real harmonization can happen.

A third area of suggested future research is to move beyond the realm of external users of accounting information, to also include internal users. The international diversity that is noted in accounting might affect the way accounting information is used internally within companies. A specific area for research could be performance evaluation, in which the question of how internal performance evaluation is affected by diversity in accounting is addressed. This could be studied using either interviews with company representatives, or with statistical methods (subject to data availability).

Several extensions of the research studies conducted in this dissertation are possible, but the focus here will be on Chapter Nine. Further research on the categories developed in Section 9.2.1 is possible, including to what extent they are applicable to other analysts (and investors), whether accounting producers can be categorized in the same way, and what additional categories can be developed. A more concrete extension of Chapter Nine is to study analysts' reports to see whether recommendations and earnings forecasts are affected by which category the analyst is classified into. This could be done with a larger sample, and by using databases with analysts' recommendations.

To conclude, the author hopes that this dissertation has made a contribution to our understanding of the effects of international accounting diversity, as well

as the role of accounting in company valuation, and thereby has added to our ability to evaluate the relevance of accounting.