

INVESTOR BEHAVIOUR

An empirical study of how
large Swedish institutional investors
make equity investment decisions

Niclas Hellman

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Investor Behaviour

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Swedish institutional investors
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PREFACE

This report is a result of a research project carried out at the department for Accounting and Managerial Finance at the Economic Research Institute (EFI) at the Stockholm School of Economics.

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As usual at the Economic Research Institute, the author has been entirely free to conduct and present his research in his own ways as an expression of his own ideas.

Stockholm in September 2000

Bo Sellstedt
Director of
the Economic Research Institute at
the Stockholm School of Economics

Lars Östman
Professor, Head of
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Accounting and
Managerial Finance

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During my youth and my time at school, I always felt a particular kind of thrill when I was given the opportunity to work independently and to search for knowledge myself. Now that I have come to the end of this long project, I can conclude that my doctoral studies have given me precisely what I was looking for. Yet I would never have been able to produce this thesis without the help, advice and sacrifices of a large number of people.

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Stockholm
September, 2000

Contents

1. INTRODUCTION	1
1.1 Background	1
1.2 Characteristics of this study compared with prior research	5
1.3 Research issue, empirical research objectives, research aim and intended contribution	6
1.4 Organisation of the thesis	8
2. PRIOR RESEARCH	9
2.1 Prior studies of institutional investor organisations	10
2.1.1 Finn (1981)	10
2.1.2 Gniewosz (1990)	10
2.1.3 O’Barr and Conley (1992a)	12
2.1.4 Holland and Doran (1998)	14
2.1.5 Corporate governance research	15
2.2 Equity valuation methods used in practice	17
2.2.1 Different approaches to equity pricing	17
2.2.2 Fundamental analysis techniques	17
2.2.3 Fundamental analysis in practice	20
2.2.4 Time horizons	21
2.3 Information sources	23
2.3.1 Use and importance of different information sources	23
2.3.2 Financial reports information	25
2.3.3 Accounting adjustments	27
2.3.4 Verbal information from the company	28
2.4 Investment decision-making	31
2.4.1 Regression analysis and simulation of investment judgements	32
2.4.2 Investment decision-making processes	32
2.4.3 Functional fixation	33
2.4.4 Myopic behaviour	34
2.5 Capital markets research	35
2.5.1 Fundamental analysis	35
2.5.2 Fundamentals and share prices	37
2.6 Behavioural finance research	38
2.6.1 Theoretical background	38

2.6.2	Some basic results regarding investors and analysts	40
2.6.3	Herding	41
2.6.4	Investor sentiments	44
2.6.5	Contrarian investment strategies	45
2.7	Position of the present study in relation to prior research	46
3.	METHODOLOGY	48
3.1	Methodological perspective	48
3.1.1	Core methodological issues	48
3.1.2	The inductive research approach	50
3.1.3	Qualitative method	51
3.1.4	Case studies	52
3.2	Selection issues	52
3.2.1	Selection of case companies	54
3.2.2	Selection of quoted companies	57
3.2.3	Selection of portfolios, time periods and interviewees	58
3.3	Data collection	61
3.3.1	Document studies	61
3.3.2	Interviews	63
3.4	Data analysis	74
3.4.1	Database, definitions and basic statistics	74
3.4.2	Open coding: phases 1, 2 and 3	79
3.4.3	Selective and theoretical coding: phases 4, 5 and 6	83
3.5	Presentation	88
4.	THE METHODOLOGICAL APPROACH IN PRACTICE	90
4.1	Descriptions of investment decisions in Astra shares	90
4.1.1	Astra investment decisions during 1993	91
4.1.2	Astra investment decisions during the first quarter of 1994	93
4.1.3	Turn-around from selling to buying during the second quarter of 1994	96
4.1.4	Continued buys during the second and third quarters of 1994	98
4.2	An interpretation of the Astra investment decision cases in terms of the developed conceptual structure	107
4.2.1	Development during 1993	107
4.2.2	Development during the first quarter of 1994	108
4.2.3	Turn-around from selling to buying	109

4.2.4 Development during the second and third quarters of 1994	109
4.2.5 Impact of financial information about Astra on the investment decisions	110
4.2.6 Nature of the expectations	111
4.3 Some further conceptual remarks	111
5. FUNDAMENTAL OPINIONS ABOUT THE INVESTMENT OBJECTS	114
5.1 Basic results	114
5.1.1 General characteristics of own company/industry fundamental opinions	115
5.1.2 Two basic case company differences	116
5.1.3 Summary of findings	117
5.1.4 Comparison with prior research	118
5.2 The development of fundamental opinions about companies/equities	120
5.2.1 Basic results	120
5.2.2 Fundamental opinions about companies/equities	121
5.2.3 Summary of findings	123
5.2.4 Comparison with prior research	123
5.3 Accounting adjustments	124
5.3.1 Reasons for not making accounting adjustments	124
5.3.2 Summary of findings	127
5.3.3 Comparison with prior research	127
5.4 Equity valuation	128
5.4.1 Basic results	128
5.4.2 Intrinsic valuation	129
5.4.3 Relative valuation	130
5.4.4 Valuation of investment company stocks	132
5.4.5 Summary of findings	133
5.4.6 Comparison with prior research	134
5.5 Dependence on other market participants when developing fundamental opinions	134
5.5.1 Reliance on perceived market expectations	135
5.5.2 Adjusting to perceived market interpretations of accounting figures	137

5.5.3 Adjusting to equity valuation methods perceived to be prevailing on the market	138
5.5.4 Summary of findings	139
5.5.5 Comparison with prior research	140
5.6 Availability of investment alternatives and the development of fundamental opinions	141
5.6.1 Impact of few investment alternatives on the development of fundamental opinions	141
5.6.2 Discussion of results	143
5.6.3 Summary of findings and prior research feedback	143
6. RESTRICTING AND REINFORCING FACTORS	144
6.1 Basic results	144
6.1.1 Fundamental opinions, investor contexts and market premises	144
6.1.2 Summary of findings	146
6.1.3 Comparison with prior research	147
6.2 The impact of market premises on investment action	148
6.2.1 Share price changes	149
6.2.2 Share liquidity	150
6.2.3 Investment actions of other investors	151
6.2.4 Summary of findings	154
6.2.5 Comparison with prior research	154
6.3 The impact of contextual premises on investment action	155
6.3.1 Legal conditions	157
6.3.2 Financial conditions	160
6.3.3 Portfolio strategy	165
6.3.4 Summary of findings and prior research feedback	166
6.4 Investment alternatives	167
6.4.1 Basic results	167
6.4.2 Internal financing considerations	173
6.4.3 Investment decisions with few available alternatives	174
6.4.4 Investment decisions with many available alternatives	174
6.4.5 Discussion of certain results	177
6.4.6 Summary of findings	177
6.4.7 Comparison with prior research	178
6.5 Contextual premises: some underlying explanations	178

6.5.1 Characteristics of the institutional investor – principal relationship	179
6.5.2 Summary of findings	183
6.5.3 Comparison with prior research	183
7. DIFFERENT INVESTMENT-DECISION SITUATIONS	184
7.1 Buy and sell decisions	184
7.1.1 Historical acquisition prices	184
7.1.2 Reduced freedom of action linked to contextual premises	188
7.1.3 Time precedence	189
7.1.4 Summary of findings	190
7.1.5 Comparison with prior research	190
7.2 Magnitude of the investment decision	192
7.2.1 Analysis and consideration of company/industry fundamentals	192
7.2.2 Summary of findings and prior research feedback	195
7.3 Short-term and long-term decisions	195
7.3.1 Investment decisions made before a confirming event	196
7.3.2 Investment decisions made in response to news	198
7.3.3 Arbitrage transactions	200
7.3.4 Summary of findings	201
7.3.5 Comparison with prior research	202
8. DEALING WITH UNCERTAINTY	203
8.1 Selecting companies for investment	203
8.2 Collecting more information and postponing decisions	204
8.3 Giving priority to trustworthy sources	206
8.4 Adding qualitative aspects	208
8.5 Adjusting to other market participants' behaviour	208
8.6 Required rates of return and diversification	209
8.6.1 Required rates of return	209
8.6.2 Diversification	211
8.7 The staff point of view	212
8.7.1 Spreading out transactions over time	212
8.7.2 Incentive structures	213
8.8 Summary of findings	213
8.9 Comparison with prior research	214

9. ORGANISATIONAL ASPECTS AND TIME LAGS	217
9.1 Organisational aspects of investment decision-making	217
9.1.1 Co-ordination versus freedom for the individual	217
9.1.2 Achievement of organisational co-ordination	219
9.1.3 Problems associated with joint decision-making	220
9.1.4 Summary of findings	223
9.1.5 Comparison with prior research	223
9.2 Time lags	224
9.2.1 Time lags between the reception of information and the updating of fundamental opinions	224
9.2.2 Time lags in the investment decision-making processes	226
9.2.3 Summary of findings	231
9.2.4 Comparison with prior research	231
10. DISCUSSION OF THE EMPIRICAL RESULTS	233
10.1 Main findings and concluding remarks	233
10.2 Contribution of this study	238
10.3 Possible implications of this study	239
10.4 Generalisation and validity	241
10.4.1 Generalisation	241
10.4.2 Generalisation to other time periods	242
10.4.3 Generalisation to institutional investors from other countries	244
10.4.4 Validity	245
10.5 Suggestions for future research	246
APPENDIX A: PRIOR EMPIRICAL RESEARCH AT THE DISAGGREGATED LEVEL – BASIC DATA	248
APPENDIX B: ESTIMATION OF THE IMPORTANCE OF THIS STUDY’S INSTITUTIONAL INVESTORS ON THE STOCK-HOLM STOCK EXCHANGE	256
REFERENCES	259

1 Introduction

1.1 Background

Investors trade equities¹ worth enormous amounts of money everyday. During 1998, the total world stock market turnover amounted to USD 26,378 billion.² In Sweden, the stock market trading volumes have increased from USD 4 billion in 1981 to USD 16 billion in 1990, and to USD 314 billion in 1999.³ This thesis provides a background to the share prices that so many people follow closely everyday. It provides a description of what lies behind the bid-, ask- and paid prices by focusing on particular investors' decision-making processes and actions, rather than by making general assumptions about ideal investor behaviour or attempts to trace investor behaviour from observed security prices.

The thesis includes the results of an empirical study of the causes of institutional investors' investment actions on the stock market, and in particular the role of financial information about the quoted companies. A large body of empirical research and theory concerning investors, information and stock markets already exists (see chapter 2). In particular, since the late 1980s there has been a renewed interest in behavioural finance research focusing on identifying behavioural decision-making attributes that are likely to have systematic effects on financial market behaviour (Olsen, 1998, p 11). However, the need for more knowledge about how investors behave in practice is still to be met. Johansson and Östman (1995, p 58) formulate this as follows:

“Assumptions about the behaviour of stock market players are...idealistic. To what extent are these players really prepared to react? What do they react to? To what extent are well-founded expectations about the long-term development of a firm really decisive for their actions? Systematic knowledge is limited about many

¹ The terms equities, shares and stocks are used interchangeably in this thesis, although they have precise connotations in certain contexts. When the term “equity” is used, this refers to shareholders' equity.

² Source: Stockholm Stock Exchange, Fact book 1999 (partly in Swedish).

³ Sources: Stockholm Stock Exchange, Fact book 1999 (partly in Swedish) and OM Stockholm Exchange, Fact book 1999 (in English).

such issues of great importance for system logic, despite a great amount of research about stock markets during recent years.”

Other authors in the accounting and finance field who have provided arguments for more research in this direction are Bohlin (1987), Mear and Firth (1988), Lev (1989), Beaver (1989), Gniewosz (1990) and Schipper (1990).

One aspect of how investors act on the stock market concerns the role of financial information about the quoted companies. In a famous article reviewing market-based research, Lev (1989, p 155) concludes that the usefulness of quarterly and annual earnings figures to investors appears to be very limited, and that theoretical and methodological refinements have yielded very modest results in furthering our understanding of how and to what extent earnings figures are used by investors. I interpret this as a need for more knowledge concerning the role financial information about the quoted companies plays in investors’ actions on the stock market.

Since Lev published his article in 1989, the discrepancy between accounting values and stock market values seems to have increased. On the basis of an empirical study, Lev and Zarowin (1999, p 383) write:

“We have documented in this study a systematic decline in the usefulness of financial information to investors over the past 20 years, as manifested by a weakening association between capital market values and key financial variables – earnings, cash flows, and book values.”

Lev and Zarowin explain this phenomenon by referring to the business change that has taken place during this period, particularly the increased importance of investments in intangible assets, and the inadequate accounting treatment of this business change and its consequences (*ibid*, p 383; see also Francis and Schipper, 1999). Edvinsson and Malone (1997) use the term intellectual capital for the difference between capital market value and book value, and argue that something is wrong with the accounting as it does not capture this intellectual capital. Some recent Swedish practical examples of this debate are Isakson (2000) and Sempler (2000). The discrepancy between accounting values and capital market values has also caused a questioning of the traditional intrinsic equity valuation models, and some suggestions have been offered for a changed view on equity valuation

which better can explain the high market values (Ekström, 2000; Latimore, 2000; see also Buckley, 1998; Copeland *et al*, 2000, chapter 20).

Investors constitute the link between the quoted company and the capital market value. A study of what triggers investors' actions and the role of financial information about the companies in this context might offer some insight into the increasing discrepancy between accounting values and capital market values.

Each deal on the stock market involves by definition one buyer and one seller. The stock market includes a very large number of investors, each having their own motives for becoming buyers and sellers. Institutional investors constitute one important group of investors, and is the focus of this thesis. Basically, "institutional investors" refers to investors who are legal persons.⁴ One characteristic of institutional investors is that they act as instructed by their principals. Many of the institutional investors can be described as financial intermediaries who manage other people's money. Knowledge about institutional investors is valuable as such. In addition, such knowledge can increase our understanding of how the stock market as a whole works.

Both in Sweden and abroad, there has been a shift from individual to institutional ownership during the post-war period (SOU 1988:38, p 288; Preda, 1991). The increased use of financial intermediaries by households is one important explanation for this development. From 1983 to 1998, the Swedish households' share of the total Swedish stock market value decreased from 30 to 15 per cent. By the end of 1998, the other owner groups on the Swedish stock market were Swedish financial enterprises (29%),⁵ foreign

⁴ This is the starting point for the definition of institutional owners used by Hedlund *et al* (1985). The operational definition of institutional investors used in this study includes insurance companies, pension funds, unit trusts, exit-oriented investment companies (closed-end funds) and exit-oriented foundations. The empirical study focuses on large, Swedish institutional investors. The definition of institutional investors is discussed in section 3.2.

⁵ Unit trusts, insurance companies, banks, investment companies etc.

owners (35%), non-profit organisations (7%), non-financial enterprises (7%), and general government (8%).⁶

Most institutional investors are not the final owners of the companies, but indirect shareholders. As a consequence, the people who invest the money and execute the ownership power are employed officers who act as representatives of the final owners. For example, a fund manager represents his/her unit trust holders when s/he makes investment decisions or participates in a general meeting of shareholders. Due to their increased size, and their more active corporate governance focusing on shareholder value, the institutional investors have become more influential as owners over time (see section 2.1.5). In Sweden, these changes in ownership and focus have also led to a debate about the effects on the quoted companies (Brodin *et al*, 2000; Wahlström, 1999). This thesis does not focus on how institutional investors execute their ownership power at general meetings, via boards, via nomination committees etc, but on how the institutional investors decide on what shares to buy, hold or sell. When institutional investors allocate their funds across different investment alternatives, their investment actions (buying, holding or selling) will indirectly benefit some companies and disadvantage others. This is the main way of executing power for investors who follow a strict financial logic, that is, who constantly consider whether the expected rate of return - including consideration of risk - could be increased by changing the portfolio (Johansson and Östman, 1995, p 56).⁷ This thesis focuses on institutional investors who could be expected to follow a strict financial logic.

Financial logic emphasises two aspects, i.e., risk and expected return, where the risk aspect concerns the uncertainty that relates to the expected return. In this light, it is interesting to study how institutional investors deal with, in

⁶ The source for the ownership figures in this paragraph is the Swedish National Bureau of Statistics, SCB, Fm 20 SM 9901: Ownership of Swedish quoted shares 1998.

⁷ Foster (1986, pp 2-3) refers to this as an “investment focus”. He distinguishes the investment focus from a stewardship focus. Similarly, Hedlund *et al* (1985) use the terms exit and voice in order to separate institutional owners that primarily “vote with their feet” from those who execute their ownership more actively. These issues are further discussed in sections 2.1.5 and 3.2.

practice, the uncertainty associated with the companies they invest in. This was considered in the formulation of the research objectives of this thesis.

Large amounts of information are produced about quoted companies, both by the companies themselves and by different information intermediaries such as business media and financial analysts at stockbroker firms (see Beaver, 1989, chapter 1). Institutional investors could be expected to make much use of such information, since they are staffed by professionals and have more resources with which to examine information about the investment objects than individual investors.

1.2 Characteristics of this study compared with prior research

When this research project began, I identified a need for research that focuses on real-world investment actions without a priori restrictions on the information set. This motivated the choice of an inductive methodological approach.⁸ This means that prior commitment to any theoretical model was avoided during the collection and analysis of empirical data. The inductive methodological approach is a key characteristic of this study.

Another important characteristic of this study is the emphasis on investors as organisations. Most prior studies at the disaggregated level focus on individuals (individual investors, financial analysts of different kinds, portfolio managers), while only a few have examined institutional investor organisations (see chapter 2).

In practical terms, the empirical design could be described as follows. A number of large Swedish institutional investors were asked to participate in the research project. Those who agreed to participate provided detailed lists of their equity transactions over a particular period. Their reasons for the specific investment decisions were subsequently followed up during inter-

⁸ The methodological positioning of the study is discussed in section 3.1. The positioning compared to prior research is discussed in section 2.7.

views with the institutional investor staff that had been involved in the decision-making.

In some respects, the focus of the present study is in line with behavioural finance research in as much as it aims to expand the information set to include information about the contexts in which decisions are made (Olsen, 1998, p 17), and to avoid relying on normative theory such as the rational decision model (see section 2.6.1). However, this study clearly differs from research efforts in behavioural finance in several important ways. Behavioural finance can be described as a scientific melding of psychology and finance (*ibid*, p 10), which means that the emphasis is on psychology-based knowledge at the individual level and financial markets findings. Studies of investors as organisations appear to fall outside this research literature. Furthermore, an inductive approach of the kind used in the present study is not in line with how research is conducted in the behavioural finance field, where the empirical approaches typically include laboratory experiments, simulations, and market-based studies.

1.3 Research issue, empirical research objectives, research aim and intended contribution

The overall research issue in this thesis is:

What are the causes of institutional investors' investment actions on the stock market?

Based on the overall research issue, two empirical research objectives were formulated:

E1. *To explain the causes of institutional investors' investments in equities, especially emphasising the effects of financial information about the companies on investment actions, in relation to other premises that affect investment actions.*

E2. *To describe institutional investors' internal systems for analysis and decision-making regarding equities, especially emphasising the treatment of financial information from the companies and the handling of uncertainty related to the investment objects.*

The first empirical research objective (E1) was met by collecting and analysing investment-decision-specific data, while E2 was met by collecting and analysing non-investment-decision-specific data. The two empirical objectives were viewed as complementary, but each empirical objective was analysed separately. Regarding the presentation of the empirical results, it was found that the results relating to the two empirical objectives would be better presented together than separately.

Although the research issue is clearly empirical, conceptual development will also be undertaken during the inductive analysis of the empirical data. The research aim of this work could be described as follows:

A1. *To develop a conceptual structure for the analysis of the causes of institutional investors' investments in equities.*

The primary reason for this research aim (A1) is that it was considered necessary for the accomplishment of E1. However, developing a conceptual structure for the analysis of the causes of institutional investors' equity investment actions may also be beneficial for future research. A1 is elaborated in section 3.4.3.

My intended research contribution is to provide increased knowledge about what causes institutional investors' investment actions on the stock market, and about institutional investors' internal systems for analysis and decision-making regarding equities. The intended research contribution is to be achieved (a) by using an empirical approach which begins with actual equity transactions and seeks to avoid a priori limitations of the information set; (b) making an inductive analysis of the empirical data including a development of a conceptual structure for the study of institutional equity investor actions; and (c) comparing my results with the relevant prior knowledge in the literature that relates information to investment action. The empirical study in this thesis is conducted at the disaggregated level, and the objec-

tives and findings are therefore limited to this level. However, it is also natural to think about the possible implications for the share price formation process at the market level. For this reason, a speculative discussion about this is included in chapter 10.

1.4 Organisation of the thesis

To a large extent, this thesis follows a linear-analytical structure (Yin, 1989, p 138): Research area – Prior research – Identification of empirical research issues – Method – Findings – Conclusions and implications. The present chapter describes the background to this study, the research issue and the objectives. Chapter 2 describes the research literature on how information relates to investment actions. Chapters 3 and 4 describe the applied methodology. The empirical results are presented in chapters 5-9. Chapter 5 includes results related to the development and importance of fundamental opinions about the investment objects. Chapter 6 deals with the factors that restrict and reinforce the impact of fundamental opinions on institutional investors' investment actions in equities. Chapter 7 elaborates differences in the causes of action across different decision situations. Chapter 8 presents results regarding how institutional investors deal with uncertainty associated with their investments in equities. Chapter 9 elaborates the impact of organisational aspects on the investment decision-making processes. Chapter 10 begins with a summary description of the main findings from chapters 5-9. It also discusses the contribution of this study in comparison with prior research, possible implications of the study, some methodological issues concerning validity and generalisation, and suggestions for future research.

2 Prior research

The purpose of this chapter is to position the present study in relation to prior research, and to create good preconditions for relevant feedback on the results of this study. The description is limited to literature concerning how information relates to equity investment actions. In this literature, some broad categories were distinguished:

- Empirical research at the disaggregated level
- Capital markets research
- Behavioural finance research

The description of prior empirical research at the disaggregated level dominates this chapter (sections 2.1–2.4). The present study belongs to this category of research, and therefore this body of literature constitutes a relevant basis for feedback. Capital markets research focuses on explaining stock price changes and the levels of stock prices. The key explanatory variables are firm-specific aspects such as earnings. Behavioural finance research uses psychology-based knowledge of individual behaviour to explain changes in stock prices. Although the present study is not conducted at the market level, the findings in capital markets research and behavioural finance research are relevant when evaluating the results of the present study (sections 2.5 and 2.6).

Empirical research at the disaggregated level focuses on individuals (private investors, financial analysts of different kinds, portfolio managers). Only a few studies have looked specifically at institutional investor organisations. There is some confusion in the literature regarding the concepts of investors and analysts. In this thesis, “investors” include both private investors and institutional investors. “Analysts” refer to people who analyse equities; they can be further divided into financial analysts and portfolio managers (the term fund manager is used synonymously). Financial analysts can be further divided into equity analysts and other analysts (for example, stock brokers, financial journalists, and corporate finance analysts). Equity analysts can be either external (sell-side) analysts who work for, for example, stockbroking firms, or internal (buy-side) analysts who work for institutional investor

organisations. In a large institutional investor organisation, one may find internal analysts, portfolio managers and senior investment managers.

2.1 Studies of institutional investor organisations

This section reviews earlier studies that have examined institutional investor organisations. Some basic data regarding these studies are provided in Appendix A. The studies described first (Finn, 1981; Gniewosz, 1990; O’Barr and Conley, 1992a; and Holland and Doran, 1998) have had somewhat similar ambitions as the present study, and are therefore reviewed in some detail.

2.1.1 Finn (1981)

Finn (1981) conducts a case study of a large Australian institutional investor, which includes a quantitative evaluation of the internal analysts’ forecasts and recommendations. His results indicate that the institution could earn excess returns by using information received in connection with company visits (pp 148–149):

“Over the period studied here, relatively large excess returns would have been earned...by acting on the buy and sell signals implicit in the direction of the revision of an earnings forecast made after a company visit; revisions made without a company visit appeared to contain little potential to earn excess returns.”

However, Finn also reports that internal analysts’ recommendations were only followed by the portfolio managers with time lags of several months, or even not followed at all. Finn estimates that because of this, this particular institutional investor lost 6.5% potential excess returns during a 12-month period. According to Finn, a major factor associated with these time lags was the institution’s authorisation processes for buying shares.

2.1.2 Gniewosz (1990)

Gniewosz (1990) performs an exploratory case study of an Australian institutional investor who applies fundamental analysis. The purpose of his study is to investigate information uses, including interaction, in the share investment decision-making process within the context of “real-life” complexities (p 223). Gniewosz’s main method is direct observation, which means that he

observes individuals in their daily activities within their natural environment. Gniewosz also conducts document analyses and records verbalisations of analyses of annual reports. On average, the recordings are about 1.5 hours long, and they are followed up by unstructured interviews. Overall, the data collection covered a twelve-month period.

Gniewosz reports that pieces of information from different sources were not used in isolation, or in terms of some hierarchy of importance, but in a complementary way. He further observes that the information flow from different sources varied over the period of a year (for example, annual reports are only issued once a year), and that the tempo and the nature of the internal analysts' activities changed throughout the year because of this. With regard to information sources, he emphasises the role of the annual report (p 229, emphasis added):

“Despite the extensive use of all information sources, the receipt of the annual report represents the major routine information event over the financial year. The use made of the annual report, and thus the significance as a major information source, changes during the year. At times it is used as a primary source of information while at other times it is used more in a confirmatory role. Furthermore, the annual report acts not only as a source of information to an inquiry but also provides the stimulus for identifying questions to be pursued via other sources.”

Gniewosz also describes the key aspects that the internal analysts focused on when providing investment recommendations to their portfolio managers (pp 228–229):

1. The company's growth prospects. Forecasts of a company's growth prospects were based on future expectations about the economy as a whole, about the industry in general, and only thirdly about the company in particular. The annual report provided an information base at this third level.
2. Significant financial market factors. Close attention is paid to possible take-over potential, speculation and expected market reactions to different pieces of information. Expected market reaction to annual report information was partially modified for the prevailing market situation (bull or bear market).

3. Investment parameters. Risk/return evaluation was carried out periodically rather than each time an investment recommendation was made. This evaluation was reviewed periodically, generally at quarterly intervals. Annual report information was only indirectly recommendation specific, in the sense that risk and expected return for an individual company was to some extent determined by the company's performance history.
4. Investment strategy. Short/medium/long-term investment strategy recommendations were made on the basis of two aspects: stock price behaviour expectations and timing of company performance expectations. As to stock price behaviour expectations, information in the annual report was used via the expected effect on aggregate market valuation and behaviour. With regard to the timing issue, annual report information was only of limited use.

Gniewosz's study shows several similarities with the present study. The focus is on an institutional investor organisation, and he emphasises interaction between information sources and a real-world context. One important difference, however, is that Gniewosz does not link information use to specific investment decisions. Another difference is that Gniewosz primarily focuses on internal analysts, and how they use information as they develop recommendations to their portfolio managers. A third potential difference concerns a priori limitations of the information set. It is not clear whether Gniewosz makes any such a priori limitations, but the study focuses very much on how the annual report is used.

2.1.3 O'Barr and Conley (1992a)

O'Barr and Conley (1992a) study the behaviour of nine large American pension funds by using the methods of field anthropology. The pension funds selected were believed by the researchers to differ in terms of investment philosophy, use of outside money managers, and corporate governance issues. The sample includes three state pension funds and six private funds. The data collection methods are document studies, direct observation, and tape-recorded interviews with fund CEOs, fund managers, internal analysts

and outside money managers. O'Barr and Conley report that each of the pension funds made four fundamental decisions (pp 41–43):

1. Asset allocation decision – determines the portfolio distribution across stocks, bonds and equity. Equity was the portfolio segment yielding the greatest variety of management structures and investment strategies.
2. Active or passive management decision – whether the ambition is to select strategies that will enable the fund to outperform the market or whether the ambition is to replicate the entire market or some significant segment of it (indexing).
3. Internal or external management decision – with regard to the actively managed assets, a decision must be made as to whether this should be done by in-house personnel or by outside managers.
4. Consistent or cafeteria investment approach decision – should the fund settle on one single investment philosophy (consistent) or should the fund follow many different investment strategies simultaneously (cafeteria).

The asset allocation decision was always made first, and in a careful and systematic way, while the other decisions were not made in any consistent order. According to the authors, the latter decisions were even made quite frequently by default.¹

O'Barr and Conley investigate the time horizons employed by the pension funds, and the language they use. They report that the interviewees typically used rhetoric of the long-term, referring to the long-term nature of fund obligations. At the same time, the interviewees suggested a number of factors that made it difficult for them to be fully committed to the long term: (a) The life cycle of the fund – the age of the beneficiaries affects the payout pattern, which in turn affects the time horizon of the investments; (b) Accounting pressures – the quarterly financial evaluation and accountability

¹ For example, a preference for a particular outside manager might result in implicit decisions regarding decisions 2–4 above (O'Barr and Conley, 1992, p 43).

leads to a language, and perhaps also a thinking, of the short term;² (c) The tyranny of computers – the availability of computers and the large volumes of information that is produced create a pressure to act on information. However, O’Barr and Conley do not study to what extent the nine US pension funds actually pursued short-term strategies.

O’Barr and Conley also investigate the cultural factors in the pension funds. They observe a lack of organisational perspectives in the funds, and find that the executives and employees tend to emphasise their personal perspectives, which lead to an absence of corporate visions. Within some of the funds, concerns for people’s feelings could lead to internal decision-making processes that did not yield optimal results. Other cultural factors were the perceived importance of managing relationships and displacing responsibility. Personal relationships were considered to be very important for the selection and maintenance of outside managers. Displacing responsibility was carried out by burying decisions in the bureaucracy (impenetrability of the decision-making structure) or by blaming the outside managers, the law, or the market (when the fund used indexing strategies).

2.1.4 Holland and Doran (1998)

Holland and Doran (1998) study the direct contact that occurs between institutional investors and the companies they invest in. They focus on the way in which institutional investors receive information from their investee companies, and the way in which the institutions seek to influence these companies. The empirical data consist of case studies based on interviews with senior directors and fund managers in 27 of the 35 largest UK-based financial institutions, including life insurance companies, pension funds, and independent fund managers (see also Holland, 1995).

Holland and Doran report that the studied institutional investors adopted a fundamental approach to the analysis of investee companies, in the sense that the immediate target for information acquisition and influence was a set of intermediate corporate variables and states such as management quality,

² Even the outside money managers were reviewed quarterly, and several of the interviewees commented that the very practice of using outside managers made it difficult to maintain a long-term perspective (*ibid*, p 170).

and the coherence of plans for succession and for corporate strategy (*ibid*, p 153). In turn, these variables were expected to influence financial fundamentals such as earnings and cash flows. Furthermore, Holland and Doran conclude that private information from direct company contact was central to fund management decisions and formed part of the basis for deciding how to influence the companies. According to Holland and Doran, the institutions used their stakeholder power to bargain for additional information, and to change corporate behaviour and performance (*ibid*, p 152).

2.1.5 Corporate governance research

Most of the prior research focusing on institutional investor organisations has been conducted within the corporate governance field.³ Most of these studies are based on US data and concern rather specific aspects such as the role of investors and managers in connection with takeovers and control contests (Denis and Serrano, 1996; Peck, 1996).⁴ In the public debate, CalPERS's (California Public Employees' Retirement System) early corporate governance activities are often referred to (see Smith, 1996; Carlsson, 1997). In Sweden, the corporate governance debate arose in connection with the proposed Volvo-Renault merger in 1993, when institutional investors announced their views publicly and stopped the merger. Another major corporate governance debate concerned the removal of the voting restrictions in Skandia in 1994.

Hedlund *et al* (1985) is a Swedish study in the corporate governance area. They investigate what institutional shareholders actually do when they "own", and classify Swedish institutional investors by using Hirschman's (1970) theory of exit, voice and loyalty. Exit implies "voting with your feet" while voice implies the use of ownership power in order to change the company's actions. Loyalty implies remaining quiet and not selling. In these terms, the present study focuses on exit-oriented institutional investors (see

³ Shleifer and Vishny (1997, p 737) describe corporate governance as dealing with the ways in which the suppliers of finance to corporations assure themselves of getting a return on their investment. For an introduction to the corporate governance literature, see Shleifer and Vishny (*ibid*) and Carlsson (1997).

⁴ For other examples, see Van Nuys, 1993; Karpoff *et al* 1996; Del Guccio and Hawkins, 1999; Short *et al*, 1999.

section 3.2.1). With regard to exit behaviour, Hedlund *et al* observe that the realisation of profits seems to be a relatively common motive when institutional shareholders decide to sell equities, and that institutional owners are not very quick to sell equities in companies whose performance was poor (*ibid*, p 150):

“The answers indicate that it is more common that the institutions sell equities that have developed well, but where the ‘stock price potential’ is viewed as having been reached, than selling equities because of bad company performance, weak management or bad future prospects.”*⁵

Hedlund *et al* argue that one reason for the unwillingness to sell shares in companies performing badly may be the low liquidity on the Stockholm Stock Exchange. The empirical basis for Hedlund *et al* (1985) is a questionnaire study, namely Hägg and Hörnell (1985), which is discussed in section 2.3.1.

Holland (1995) studies the corporate governance role that financial institutions play in their portfolio companies. The study is based on empirical data from the same study of institutional investors as Holland and Doran (1998).⁶ The results show that the initial decision regarding the position of the holding in the portfolio determined how the corporate governance was carried out. If it was a short-term investment, an arms length relationship was maintained, but as institutions decided to become larger and more stable stakeholders, the relationships between the institutions and their portfolio companies became closer. Three key concepts in these relationships were knowledge, reputation and confidence (Holland, 1995, chapter 4). The institutions wanted to gain in-depth knowledge of the business, they wanted to build the relationship on mutual trust and confidence between the parties, and they were anxious to maintain a good reputation. According to Holland, the latter was an important reason for why the institutions preferred private rather than public contact. Public disputes could destroy the reputation of both concerned.

⁵ The asterix sign (*) is used to mark when a quotation has been translated from Swedish.

⁶ See section 2.1.4.

2.2 Equity valuation methods used in practice

Some of the basic data about the studies referred to in this section are described in Appendix A.

2.2.1 Different approaches to equity pricing

A number of questionnaire-based studies have examined the use of different equity pricing approaches in terms of fundamental analysis, technical analysis and modern portfolio theory/beta analysis (see table 2.1).

A comparison of the studies in table 2.1 is difficult since they refer to different countries and time periods. However, a common result in all of the five studies is that fundamental analysis is the most common valuation approach. In the Swedish study, the use of technical analysis is particularly low. Olbert (1994) argues that this could be due to the small trading volumes on the Stockholm Stock Exchange. The use of beta analysis could be traced to differences in job function. Several studies report that portfolio managers apply beta analysis more often than financial analysts (Moizer and Arnold, 1984; Olbert, 1992; Vergoossen, 1992, 1993).

2.2.2 Fundamental analysis techniques

Many studies investigate the use of different fundamental analysis techniques. The results of most of the questionnaire-based studies in this vein are summarised in table 2.2. Again, it is difficult to compare these studies with each other, since they refer to different countries and time periods. For example, analysts' choices of valuation methods may be influenced by the prevailing financial theory of their time (Hunter and Coggin, 1988).

The general pattern in table 2.2 is that P/E ratios are very highly ranked in all of the studies. This is also in line with the results of some studies not included in table 2.2 (Bing, 1971; Day, 1986; Previts *et al.*, 1994; Wright and Robbie, 1996). According to Arnold and Moizer's (1984) interview study, the analysts' share appraisal procedures tended to follow the same general pattern: predictions of earnings for the current year followed by the application of an "appropriate" P/E ratio in order to predict future market price. Day (1986) reported similar results.

Another pattern in table 2.2 is that more sophisticated valuation techniques receive low ranks. This can also be interpreted as a short-term focus in fundamental valuation practice (see Barker, 1999b, p 197). Why does a gap exist between valuation theory and practice? Forsgårdh and Herten (1975, pp 79–81) discuss this issue and argue that investors prefer the less sophisticated valuation models due to the uncertainty they perceive regarding the long-term expectations that have to be explicitly considered in the more sophisticated models (*ibid*, p 80):

“The fact that stereotyped, and partly intuitive, valuation models are found in practice will be attributed to the fact that most stock specialists view the future to be so uncertain, that more sophisticated valuation models – based on long-term expectations – are perceived to be useless.”*

Barker (1999b) examines why the practical use of valuation models by fund managers and financial analysts differs from the theoretical literature. On the basis of an extensive empirical study, he reports that it is the inherent uncertainty of future outcomes that forces financial analysts and fund managers to adopt a short forecast horizon and to rely on subjective estimations of terminal values (*ibid*, p 213).

Several studies suggest that stock market sector (industry) affects the choice of fundamental analysis technique (Govindarajan; 1980; Olbert, 1992; Barker, 1999a). Olbert (1992, p 108) summarises his results regarding Swedish analysts as follows:

“EPS is most important in the industries forestry products, engineering, bank, wholesale and retail trade, and service. Net assets is the most important valuation factor for property companies and investment companies. Management competence and the employees’ competence are considered to be particularly important for service companies. Cash flows are ranked higher for property companies than for other industries.”*

In a study of venture capitalists, Wright and Robbie (1996) emphasise that their respondents used several different valuation methods. The greatest weight was given to one particular valuation method, and other valuation methods were subsequently used for checking.

2.2.3 Fundamental analysis in practice

Some studies have investigated how financial analysts and portfolio managers conduct fundamental analysis in practice (the interview study in Arnold and Moizer, 1984; Day, 1986; Bréton *et al.*, 1992; Williams *et al.*, 1996). These studies use different methodological approaches, and refer to different time points and countries. In some of the studies, the underlying samples are also rather small. Still, a recurring result in these studies is that analysts analyse equities in many different ways, ranging from formal and quantitative approaches to informal analysis that relies more on experience and intuition.

Forecasting is an important part of fundamental analysis. Studies of analysts' forecasts of different valuation attributes identify earnings as the most common and important forecast variable (Lee and Tweedie, 1981; Arnold *et al.*, 1984; Olbert, 1992, 1994), and financial statements as an important basis for analysts' forecasting work (Marton, 1998). For Swedish analysts, Olbert (1992, 1994) reports that the most frequently forecasted factors were EPS (93%), followed by earnings after financial items, and sales. Chugh and Meador (1984) had a different research approach in that they made a distinction between short-term factors and long-term factors. With regard to short-term factors (the next quarter), the studied US analysts ranked prospects of the relevant industry as the most important factor for share appraisal purposes, while of the long-term factors (over the next five years), the expected change in EPS was ranked as most important. However, their response rate was only 20%, which means that a non-response bias was possibly at hand.

Experience is a factor that may affect how fundamental analysis is conducted. In an early interview study, Lundman (1967) asked 30 Swedish equity specialists questions about how they combined their information into a judgement on stock price. Their answers indicated that they relied to a great extent on experience. Olbert's (1992) results suggest that increased experience was linked to a somewhat decreased use of fundamental analysis and company contacts, shorter forecast horizons, but not to a decreased use of more sophisticated valuation methods.

Job function is another variable that may affect how fundamental analysis is conducted. Some studies report that financial analysts tend to conduct analyses that are more detailed and more frequent than those conducted by portfolio managers (Moizer and Arnold, 1984; Olbert, 1992). The results based on questionnaire data in Williams *et al* (1996) suggest that external (sell-side) analysts conduct more detailed analyses than internal (buy-side) analysts (see also Moyes *et al*, 1997), but this seems more uncertain. In fact, the interviews that preceded the Williams *et al* (1996) questionnaire study indicated that external analysts based their assessments of future firm performance more on rumour and private conversation than traditional forms of analysis (*ibid*, p 120).

Some studies have compared the number of companies the analysts follow (Moizer and Arnold, 1984; Olbert, 1992; Pike *et al* 1993; Williams *et al*, 1996). Although the studies refer to different periods, the results indicate that Swedish analysts follow fewer firms than analysts in the US, the UK, and Germany.⁷ One reason for this may be the smaller number of companies on the Swedish stock market.

2.2.4 Time horizons

Forsgårdh and Herten (1975, pp 63–66) discuss horizon concepts and make a distinction between:

1. The investor's investment horizon – the selling point in time, planned at the time of purchase.
2. The investor's expectation horizon – the period up to which the investor has expectations at the time of purchase.
3. The investor's forecast horizon – the period up to which the investor has forecasts regarding a specific variable (primarily earnings).

⁷ Moizer and Arnold (1984) report that portfolio managers on average followed 49 companies, compared with 34 for financial analysts. In Olbert (1992), the corresponding figures were 15 and 13 companies. In Pike *et al* (1993), the average number of companies observed closely was 28 for the UK analyst sample and 36 for the German analyst sample. In Williams *et al* (1996), the average US external analyst followed 20 firms in three industries, while the average US internal analyst followed 73 firms in ten industries.

Holland (1995, p 71)⁸ reports that the UK institutional investors he studied classified their portfolio holdings of equities into three categories. The first category included large stakes, where the institution had a long investment horizon and did little trading. The second category included holdings where the institution did some regular trading around a stable target stake. The third category included short-term, transient, investments. An early Swedish study, Lundman (1969), suggests that active investors tend to have a shorter investment horizon than passive investors.⁹ An even earlier Swedish interview study of 16 stock market specialists, Möller (1962), reports that the interviewees often had very diffuse investment horizons. Möller argues that with regard to long-term investments, the investor will keep the shares until further notice, and decide at a later stage whether to sell or not. With regard to expectation horizons, Forsgårdh and Herten (1975, p 63) argue that the idea expressed in the literature, that equity investors have expectations for specific periods, is not very likely other than in exceptional cases such as in connection with speculation around interim reports and closing commu-
niqués.

Table 2.3 Reported forecast horizons in four prior studies

Study	Country	Forecast horizon
Bing (1971)	USA	25.4 months ¹
Arnold and Moizer (1984)	UK	22.5 months
Arnold <i>et al</i> (1984)	USA	29.6 months
Olbert (1992)	Sweden	22.1 months

¹ Calculated by the author on the basis of table 2 in Bing (1971, p 57).

In truncated valuation models, the future is divided into one period up to a forecast horizon and one period beyond the forecast horizon that is to be captured by a horizon value (see, for example, Levin, 1998). Table 2.3 summarises the average forecast horizons in four prior studies. Table 2.3

⁸ See also section 2.1.5.

⁹ The concepts “active” and “passive” refer to transaction frequency. The sample consisted of Swedish private investors.

indicates an average forecast horizon of approximately two years. Day (1986) reports a similar result.

2.3 Information sources

2.3.1 Use and importance of different information sources

About 40 of the articles referred to in Appendix A examine the use and perceived importance of different information sources to investors and analysts. Sections 2.3.1–2.3.2 summarise the results in these studies at a very general level, and focus on the findings that are more directly relevant for the present study. Although many studies have been conducted, the results must be interpreted cautiously (see also the discussion in Hines, 1982). The methodological quality of the studies varies considerably with respect to sample size, response rate, sampling carefulness, pilot studies and pre-tests, and interviewer competence.¹⁰

Many of the questionnaire studies focus on *analysts*.¹¹ The most important sources according to these studies were different forms of written and verbal information from the companies. In particular, annual reports, communications with management, direct company contact, company visits, analysts'

¹⁰ The sample sizes vary between 42 and 2,002 respondents in the questionnaire studies, and between 18 and 111 interviewees in the personal interview studies. The response rates vary between 10% and 95%. The usable response rate was considerably lower in some studies (Arnold and Moizer, 1984; Arnold *et al.*, 1984; Olbert, 1992, 1994). In many of the studies the potential non-response bias is not rigorously analysed; Olbert (1992, 1994) is an exception. It is generally difficult to determine the carefulness of the sampling procedure in more detail; two exceptions are Lee and Tweedie (1981) and Stanford Research Institute (1987). Quite few studies include profound pilot studies or pre-tests. Those that do include are Lee and Tweedie (1977, 1981), Arnold and Moizer (1984), Hedlund *et al.* (1985), and Stanford Research Institute (1987). When interview questionnaires were used, the interviewer was almost always someone other than the researcher him-/herself. For example, Lee and Tweedie (1981) let graduating students conduct the interviews with professional investment analysts. This may have caused biases in the sense that the interviewers may not have been knowledgeable enough, and the analysts may not have taken the interviews seriously enough.

¹¹ Most and Chang (1979); Chang *et al.* (1983); Arnold *et al.*, 1984; Stanford Research Institute (1987); Vergoossen (1992, 1993); Olbert (1992, 1994); Pike *et al.* (1993); Bréton and Taffler (1995).

Table 2.1 The use of different equity pricing approaches in prior research

Equity pricing approach	Carter and Van Auken (1990) ^{II} USA (% who state they use the approach)	Arnold <i>et al</i> (1984) USA (average use frequency) ^I	Arnold and Moizer (1984) UK (average use frequency) ^I	Pike <i>et al</i> (1993) UK (perceived usefulness) ^V	Pike <i>et al</i> (1993) Germany (perceived usefulness) ^V	Olbert (1992, 1994) Sweden (average use frequency) ^I	Vergoossen (1992, 1993) ^{III} Netherlands (% who state they use the approach)
Fundamental analysis	74%	94	92	86	90	96	90%
Technical analysis	35%	41	42	42	70	12	19%
Beta analysis ^{IV}	30%	34	21	22	55	27	16%

^I Calculated as averages, based on the midpoints of each of five frequency intervals (“Almost always”: 96–100; “Usually”: 66–95; “Sometimes”: 36–65; “Seldom”: 6–35; “Hardly ever”: 0–5). This means that if all respondents claimed to use a certain approach almost always, the average use frequency would be 98.

^{II} Carter and Van Auken also include two other categories: “Options strategy” and “Futures strategy”.

^{III} Vergoossen also includes three other categories: “Ratio analysis”, “Other analysis methods” and “No answer”.

^{IV} Carter and Van Auken use the term “Portfolio analysis”, and Arnold *et al* use the term “Beta analysis/Modern portfolio theory”.

^V Pike *et al* (1993) measure “perceived usefulness” instead of “use frequency”. In addition, they use a seven-point scale, which has been proportionally transformed into a 100-point scale in the table. In addition, Pike *et al* do not use the category “Fundamental analysis”, but make a direct comparison between “Technical analysis”, “Beta analysis” and four fundamental analysis sub-categories (see table 2.2). The fundamental analysis measure in table 2.1 refers to the fundamental technique that was reported as most useful (“P/E or P/CF multiple”).

Table 2.2 Ranking of factors considered in fundamental analysis (1 = most important or most often used)

Fundamental analysis factors ^{III}	Carter and Van Auken (1990) ^I USA	Arnold <i>et al</i> (1984) USA	Arnold and Moizer (1984) UK	Pike <i>et al</i> (1993) ^{III} UK	Pike <i>et al</i> (1993) ^{III} Germany	Olbert (1992, 1994) Sweden
P/E multiple ^{II}	1	1	1	1	1	1
Net assets per share	n.a.	2	3	2	2	2
Dividend growth model	n.a.	3	2	3	4	4
Discounted cash flow	n.a.	4	4	4	3	3

^I Carter and Van Auken use different subcategories for seven different main categories; price-earnings analysis was the highest ranked technique within the main category of “fundamental analysis – firm”.

^{II} Pike *et al* use the term “P/E or P/CF multiple” for this category. In Olbert (1992, 1994), Arnold and Moizer (1984) and Arnold *et al* (1984), the technique is described as either “to estimate the true value of the P/E ratio” or “to estimate the market value by applying a P/E ratio to a forecast of next year’s earnings”.

^{III} Carter and Van Auken ask questions about the perceived importance of different security analysis techniques and portfolio management techniques. Pike *et al* ask about the perceived usefulness of different evaluation techniques. The three remaining studies ask about how often different factors are considered in fundamental analysis.

meetings in-company, interim reports, and prospectuses received high rankings. A certain tendency towards increased importance of verbal company information was apparent over time, at the cost of the written company sources. One reason for this may be that verbal contact is perceived to offer a competitive advantage in terms of investment performance relative to rival funds (see Barker, 1998). Stanford Research Institute (1987, p 15) reports that the analysts used many different information sources. Related to this, Barker (1998) reports that accounting information constitutes important background information for the analysts' verbal communication. Rogers and Grant (1997) offer a different perspective on analysts' use of information sources by using a different research method: content analysis of the full text of US sell-side analysts' reports and the corresponding annual reports. They report that financial statements provided 26% of the information cited in the reports, the narrative sections in the annual report accounted for 26%, while the remaining 48% could not be traced to the annual report at all. This indicates that written information from the company is relatively important.

Several studies *compare portfolio managers with financial analysts*.¹² A recurring result in these studies is that portfolio managers rank advisory sources higher than financial analysts do. However, the two groups differed very little with regard to the ranking of perceived importance of written and verbal company information.

Several of the questionnaire studies focus on *institutional investors*.¹³ The results differed somewhat from the analyst studies in that the highest ranked sources were generally written company information and advisory services. Somewhat surprisingly, business press and daily (non-business) press were the two highest ranked information sources in the Swedish study, for

¹² Stanford Research Institute (1987); Moizer and Arnold (1984); Bence *et al* (1995); Barker (1998); Olbert (1992, 1994).

¹³ Mason (1971); Most and Chang (1979); Anderson (1981); Lee and Tweedie (1981); Chang *et al* (1983); Hägg and Hörnell (1985). The persons representing the institutional investors were "senior investment managers or senior investment analysts" in Lee and Tweedie (1981) and "investment managers" in Chang *et al* (1983). In the other four studies, the functions of the persons representing the institutional investors are uncertain.

“investment holdings”.¹⁴ Overall, the results from the institutional investor questionnaire studies seem uncertain: verbal information from management was only included as a questionnaire alternative in two of the six studies (Anderson, 1981; Hägg and Hedlund, 1985), the functions of the persons representing the institutional investors were uncertain in four of the studies (see above), and all of the studies are somewhat old. In a different type of questionnaire study by Schwartz and Steil (1996), chief finance directors in European institutional investor organisations were asked to mark how frequently their investment decisions for individual stocks were motivated by a number of factors listed by the researchers. In total, 13 factors were listed in the questionnaire. The factors receiving the highest frequencies were “stock-specific information”, followed by “internal research”, “reassessment of portfolio”, “external research”, “profit-taking”, “market-wide news”, “bargain-hunting”, and “fund redemption or other cash flow reasons”. However, the response rate was very low (15%), and it would also be reasonable to question how involved finance directors are in investment decisions for individuals stocks.

2.3.2 Financial reports information

This section describes the results in studies of what information in financial reports is perceived as important by investors and analysts.¹⁵ In the questionnaire studies of both *analysts* and *institutional investors*,¹⁶ a general result is that financial statements are ranked very highly. Furthermore, the income statement was typically ranked before the balance sheet, whereas the cash flow statement was consistently ranked lower than both the income

¹⁴ One possible explanation for this is that the general investment managers completed the questionnaires, and that they worked at some distance from the operating decisions regarding investment holdings.

¹⁵ The considerations described in the first paragraph in section 2.3.1 also apply to this section.

¹⁶ Studies of analysts: Buzby (1974); Firth (1978, 1979); Chang et al (1983); Arnold et al (1984); Stanford Research Institute (1987); Olbert (1992, 1994); Vergoossen (1992, 1993); Bréton and Taffler (1995). Studies of institutional investors: Anderson (1981); Lee and Tweedie (1981); Chang et al (1983); Financial Accounting Foundation (1985). The persons representing the institutional investors in the questionnaires were “senior investment managers or senior investment analysts” in Lee and Tweedie (1981) and “investment managers” in Chang et al (1983). In the other two studies, the functions of the persons representing the institutional investors are uncertain.

statement and the balance sheet. Other often quite highly ranked parts of the annual report were segmental information and notes to the accounts.

Somewhat similar results have been reported in several studies using different research methods. Previts *et al* (1994) apply content analysis of the words and short phrases in US sell-side analyst reports, and conclude that words and phrases associated with the income statement occurred most often. In a verbal protocol study of what information analysts use for assessing earning power, Biggs (1984) reports that the analysts' search for information involved the income statement 67% of the time, while the corresponding figures for the balance sheet and the funds statement were 26% and 7% of the time respectively. Among the types of ratios that the subjects analysed, most time was spent on operating performance and trend analysis. Also using verbal protocol analysis, Day (1986) reports that forecasts of balance sheets and cash flows were important for forecasts of particular earnings components. Cash flow forecasts enabled the analysts to examine the expected changes in debt levels, and this in turn helped them to forecast the interest charge.

However, on the basis of an earlier literature review, Frishkoff *et al* (1984) suggest that subjects/respondents place much less importance on cash flows and earnings components in verbal protocol analysis studies compared to questionnaire studies. They suggest that one possible reason for this might be that while the respondents make little use of cash flows, they choose to say they do because they perceive this to be the theoretically correct answer. This phenomenon was observed in Berry and Waring (1995), who studied 30 UK bank loan officers' ways of analysing companies. They first conducted interviews with the bank loan officers, and a few months later, the same officers were asked to analyse a case using normal procedures at their own bank. The interviews suggested that the interviewees employed a wide-ranging, detailed and systematic evaluation process with forecasts and specified assumptions. However, when the bank loan officers analysed the case, they used significantly less analytical approaches.

Barker (2000) provides some results, based on participant observation and interviews, regarding how external analysts use earnings information. He reports that, on the one hand, the analysts treated the announcement of

earnings with immediacy and importance but, on the other hand, the analysts were only interested in earnings to the extent that they were a medium for income generation to the firm (*ibid*, p 107). When the earnings news had been exploited, the subsequent interest in the reported earnings was low.

2.3.3 Accounting adjustments

Financial analysis of companies sometimes leads to a need for adjusting the accounting figures. Choi and Levich (1990) did interviews in 17 institutional investor organisations around the world regarding how they dealt with international accounting diversity. For nine of the institutional investors, accounting diversity was a problem that affected their investment decisions.¹⁷ Seven of these investors coped with the diversity by restating from the local accounting to a more familiar accounting framework. However, in five of these cases the restatements were only done in terms of mentally adjusting for major differences in accounting measurements (p 48), while in two cases, the investors did more formal restatements. One proposed reason for not making formal adjustments was that the task was considered too big.¹⁸ Marton (1998) conducts interviews of a survey-type with 22 non-Swedish financial market participants primarily interested in Swedish equities. Analyst reports written by the interviewees are also studied. Marton's results suggest that, in general, the analysts did not make explicit and quantified adjustments of the accounting.¹⁹ The proposed reason for this was that Swedish financial statements were considered to be very close to US GAAP and IAS. Their general opinion on international accounting diversity was that this was only considered implicitly, that is, without quantitative adjust-

¹⁷ Seven replied that they did not have a problem with accounting diversity. For four of them, the reason was that they adopted a local perspective when they analysed foreign financial statements. The three others relied on variables less sensitive to corporate accounting treatment (dividends, macroeconomic variables, and "sociological trends").

¹⁸ Other observed ways of coping with accounting diversity problems were (i) to stay out of equities in countries whose accounting principles deviated much from the own country, and (ii) to employ a top-down approach to foreign investments (select countries), and then only choose well-known companies or invest in the index.

¹⁹ The only exception was one US analyst who required that the Swedish company provided US GAAP reconciliation in its annual report. After having studied the analysts' written reports regarding Swedish companies, Marton further reports that adjustments were sometimes made for taxes, extraordinary items, and foreign currency translation, but that the adjustments were made unsystematically, and that some of the adjustments were wrong.

ments. In a study based on semi-structured interviews with 17 London-based international financial analysts and fund managers, Miles and Nobes (1998) report that although most interviewees used trend and ratio analysis based on accounting data, none of the fund managers, and few of the financial analysts, restated accounting data to a benchmark, and few used available reconciliation data.²⁰ According to Miles and Nobes, this was because a large majority of the interviewees were not aware of accounting differences in major topic areas, and most interviewees had no accounting qualifications.

Miles and Nobes also report that most sector experts saw accounting differences as having an effect on investment decisions, while most country experts did not. This relates to Choi and Levich's (1990) observation that virtually all of their institutional investor organisations focused on countries rather than industries. According to Choi and Levich, this way of framing the investment analysis task seemed to reduce the perceived problems of international accounting comparisons.

On the basis of data collected from participant observation and interviews, Barker (2000) suggests that the 32 external analysts in his study, interpreted earnings information in a rather superficial way. Furthermore, he reports that earnings were adjusted for exceptional items only. Barker links this to his findings that the analysts revealed poor understanding of the underlying basis of recognition and measurement, and of the interactions between earnings and the balance sheet (*ibid*, p 107).

2.3.4 Verbal information from the company

Verbal information from the company was very important according to the information source studies referred to in section 2.3.1. Marston (1996) provides some basic results based on a questionnaire study focusing on how companies handle their investor relations. The respondents are finance directors in large quoted UK companies. "Special meetings" (meetings for individuals or small groups from the same organisation) were ranked as the most important opportunity for communication with financial analysts and

²⁰ However, most of the fund managers assumed that analysts made restatements.

fund managers, followed by “answering telephone queries”, “general meetings” (meetings for delegates from different organisations), and “providing feedback on analysts’ reports”. On average, the companies had held 24.7 special meetings during the previous 12 months. The company officials that most often attended the meetings were the finance director (98% attending the meetings), the chief executive (97%), and the head of investor relations (84%).

Table 2.4 Company respondents’ rankings of information items discussed at meetings with financial analysts and fund managers

Source: Marston (1996, pp 31–32). Future performance items 8–20 are not included.

	Information on past performance	Information on future performance
1	Explanation of recent results in the context of the general economic environment	Company strategy in the long term
2	Explanations of structure of balance sheet and gearing	(2) Company strategy in the short term
3	Performance of recent acquisitions	(2) Company strategy for particular segments of the business
4	(4) Additional breakdown of published figures by line of business	Cash flow situation
5	(4) Explanation of accounting policies	Dividend policy
6	Additional breakdown of published figures by geographical area	(6) Company strategy for future acquisitions
7	Outcome of completed research and development projects	(6) Further explanation of major new projects and developments that have already been announced

Marston (*ibid*) also examines what is dealt with during the meetings between company representatives and financial analysts/fund managers. Table 2.4 shows that with respect to “past performance”, the financial analysts and fund managers primarily wanted further details about the financial statements. With respect to “future performance”, the financial analysts and fund managers primarily wanted to know more about the company’s strategies. In a smaller study, but based on Swedish data, Johansson (1998) reports somewhat similar results. The results provided by Marston also seem to correspond well with Holland’s (1998a, 1998b) results (see below).

Holland (1998a, 1998b) studies the private company communications between quoted companies and their core financial institutions performing case studies of 33 large quoted UK companies. The results suggest that the companies and the institutions develop a common or overlapping information agenda. According to Holland (1998a), the formal part of this agenda has a financial-report-like outlook (*ibid*, pp 45–46):

1. Private discussions after financial reports announcements, revolving around how and why the results were achieved and further explanations of the mechanics of (new) accounting methods.
2. Discussions about future scenarios and risks beyond what was included in the public information. The companies were wary of publicly committing themselves to views of the future, or of forecasts against which they could be measured.
3. Dividend policy, gearing and debt structure.
4. Exploration of further details behind public announcements and other public information.

According to Holland (1998a), this outlook of the formal agenda made financial reports an important basis for the communication that takes place between the parties (see also Holland, 1998b). The informal part of the agenda consisted of institutional requirements in terms of corporate governance and corporate financial performance, and of a set of qualitative company variables such as quality of management and strategy. In situations in which the institution was relatively passive, or when contact with a new investee was being established, the formal part of the agenda dominated. The informal part dominated as relations matured and when the financial institution was very active.

There are some more extensive studies based on personal interviews, which deal with the direct contact between companies and financial analysts/fund managers (Holland and Doran, 1998, see section 2.1.4; Holland, 1998a, 1998b; Barker, 1998). The evaluation of management capacity is reported to be essential in all these studies. According to Barker (1998), the fund man-

agers and internal analysts he studies considered meetings with the company management to be very important. The reason for this was that it allowed the fund manager/internal analyst to gain a clearer understanding of the company's strategies and to evaluate the management's capacity to achieve these strategies. Barker (1999b, p 214) suggests that the evaluation of management is a proxy for whether or not a company is likely to be able to outperform its peer group, and as such, it guides choices between investments.

An important issue concerns the extent to which financial analysts and fund managers receive insider information in connection with direct contact with quoted companies. Rundfelt (1984, p 25) defines insider information as information that is not publicly known and which, if it were known, could be assumed to affect the share price in a material way. De Ridder (1990) studies abnormal returns around trading suspensions on the Stockholm Stock Exchange 1980–1988, and reports very low impact of insider information on the share prices (*ibid*, p 41):

“Unlike the results of studies of stock-market behavior carried out in other countries... it appears that the amount of confidential company-specific information in Sweden is much less than, say, in the US.”

De Ridder argues that this could be because of more respectful handling of confidential information among Swedish corporate managers and limited Swedish analytical activity. More recently, however, insider trading has been described as common in the Swedish public debate (Einar *et al*, 1999; Affärsvärlden, 1999), but these opinions have not been based on scientific studies.

2.4 Investment decision-making

This section describes behavioural studies of professional individuals acting on the stock market. Some basic data about the studies referred to in this section are described in Appendix A.

2.4.1 Regression analysis and simulation of investment judgements

Some studies have tried to construct simulation models for how to select equities (Clarkson, 1962; Slovic *et al*, 1972; Ebert and Kruse, 1978; Mear and Firth, 1987). In general, these studies report that it is possible to construct models that correspond closely with how experiment participants choose equities, but that there is a great deal of variation between individuals.

2.4.2 Investment decision-making processes

Bouwman *et al* (1987) apply verbal protocol analysis, and examine 12 financial analysts' decision-making processes. The analysts were asked to evaluate a security in the same manner, and to the same point, as they would do in their normal practice. They received a package of materials containing the kinds of information that they would typically use. Chronologically, the analysts (a) familiarised themselves with the company's operations, examining factors such as size, growth, products, divisional performance, seasonal trends, names of directors etc; (b) scanned for reasons to reject the company; and (c) explored themes, for example by trying to find possible explanations for a particular earnings trend. Bouwman *et al* (*ibid*, pp 25–26) also observe that all the financial analysts used some kind of checklist, particularly in the beginning of their analysis. The contents of these checklists ranged from a handful of key indicators to a considerable list of report sections. Bouwman *et al* argue that the analysts possessed task-specific knowledge, so called financial templates, that they used when evaluating the equities (*ibid*, p 26):

“Financial templates are complex structures that contain a variety of knowledge: industry-specific standards of what is acceptable, ‘pictures’ of typical company behavior, typical problems for that type of company or industry, and ‘ready-made’ evaluations of the attractiveness of an investment.”

According to Bouwman *et al*, such task-specific knowledge is linked to analyst experience, and it is particularly important early on in the analysis.

Bouwman *et al* (1995) made a further analysis of the data collected in connection with Bouwman *et al* (1987), specifically trying to assess the role of

GAAP-based information (GAAP = generally accepted accounting principles) compared to non-GAAP-based information. They report that the investment-screening task consisted of two rather distinct components: searching for reasons to reject the company and assessing the future earnings potential. GAAP-based information appeared to play a dominant role for the elimination of unattractive investment candidates. However, for the assessment of future earnings potential, GAAP-based information appeared to be much less significant. Here, the subjects largely relied on qualitative information, and on information about individual segments.

2.4.3 Functional fixation

Many studies in the accounting field focus on functional fixation (see Belkaoui, 1989a, 1989b). In this literature, functional fixation refers to when investors interpret accounting information without regard to the rules used to produce it (Chen and Schoderbek, 2000, p 24). In a famous experimental study, Abdel-khalik and Keller (1979) test the presence of functional fixation in a financial investment context, in which the accounting method for inventories is changed from FIFO to LIFO. They report that the subjects (61 analysts and bank investment officers) understood the effects of the method change on earnings and cash flows, but that they still tended to use unadjusted net income for their investment choice tasks, thus indicating functional fixation. Wilner and Birnberg (1986) criticise Abdel-khalik and Keller (1979) and other functional fixation studies for assuming too simple a relationship between inputs (data) and outputs (judgements/responses):

“Perhaps we should even worry about the possibility that on-the-job behaviors do not include lifo-fifo adjustments since other factors may dominate the adjustment or more accessible data may be highly correlated with the lifo-fifo effect in real world data sets.” (Wilner and Birnberg, 1986, pp 78–79)

In a study based on market-level data, Hand (1990) reports some empirical support for the idea that unsophisticated (noninstitutional) investors react more mechanically to reported earnings than sophisticated (institutional) investors. In a later experimental study, Bréton and Taffler (1995) asked 60 sell-side analysts from five London firms to calculate a number of financial ratios on the basis of different sets of window-dressed accounts. Their results indicate functional fixation in the sense that the analysts made few

adjustments of their financial analyses in order to take the window-dressed items into account. Bréton and Taffler suggest some reasons for this: (a) the analysts' forecasts are evaluated against the reported figures, and the reported figures will also include the window-dressed items; (b) the long bull market period reduced the perceived need of analysing window-dressed items; (c) drawing attention to, and correcting for, creative accounting in the written analyst reports could worsen relations with the company management.

In sum, the empirical results are mixed as to whether investors can “see through” alternative accounting treatments or whether investors fail to see the cash flow implications of alternative accounting treatments (Lev and Ohlson, 1982; Miles and Nobes, 1998).

2.4.4 Myopic behaviour

Managers who underinvest in long-term intangible projects (such as R&D, advertising and employee training) for the purpose of meeting short-term goals engage in myopic behaviour (see Bushee, 1998). One particular debate in the literature concerns the extent to which institutional investors indirectly encourage corporate managers to engage in myopic behaviour. Critics argue that the frequent trading and short-term focus of institutional investors encourage managers to engage in such myopic behaviour, while others argue that the institutions allow managers to focus on long-term value rather than on short-term earnings (*ibid*, p 305). In Bushee's (1998) empirical study based on US market-level data, increased institutional ownership is linked to decreased myopic behaviour.²¹ However, there appears to be a difference with regard to the length of the investment horizon. A large proportion of ownership by institutions that have a high portfolio turnover and engage in momentum trading (short investment horizon) increased the probability of myopic behaviour. According to Bushee (*ibid*), institutional ownership serves to reduce the pressure on managers for myopic behaviour, unless the ownership level of transient institutions is extremely high.

²¹ The degree of myopic behaviour is measured as the extent to which R&D expenses are reduced in order to reverse an earnings decline.

In capital markets research, the *myopic hypothesis* suggests that the capital market has a short-run focus on the current quarter's or the current year's reported earnings rather than having a focus on a multi-year horizon (Foster, 1986, p 304). On the basis of prior empirical research, Foster (*ibid*, p 449) states that the capital market appears to have a multi-year rather than a single-year horizon when pricing securities. Several later market-based studies have indicated that the market is not myopic with respect to R&D expenditure (Chan *et al*, 1990; Green *et al*, 1996). On the other hand, a few questionnaire-based studies involving corporate managers have indicated myopic behaviour (Grinyer *et al*, 1994; Demirag, 1995).

2.5 Capital markets research

Capital markets research is a very extensive field. This section only deals with share price research related to fundamentals, since this was considered to be most relevant for prior research feedback.

2.5.1 Fundamental analysis

Fundamental analysis is a concept often referred to both in practice and in the literature concerning how information relates to share investment actions. Fundamental analysis has been reported to be the most common valuation approach in questionnaire-based studies (see section 2.2.1) and it has a central role in capital markets research that applies a measurement perspective (see section 2.5.2). Fundamental analysis implies a search for intrinsic values, that is, values of equities that can be determined on the basis of such fundamentals as earnings, dividends, capital structure, and growth potential (Foster, 1986, p 309). An important aspect is that intrinsic value is to be inferred without reference to current market price. Fundamental analysis requires forecasts of relevant valuation attributes, and a valuation model that will convert the forecasts to intrinsic values. The dividend model is the basic valuation model in fundamental valuation theory (Penman, 1992; Ohlson, 1995). According to the dividend model, the value of a firm's equity is equal to the present value of all future dividends. Accounting concepts, such as book value (shareholders' equity) and earnings, are related to dividends, and have been frequently applied for the development of different fundamental valuation techniques with practical relevance

(Hendriksen, 1982; Penman, 1992). Given certain assumptions, a formula for determining the appropriate P/E ratio can be derived from the dividend model (see, for example, Lofthouse, 1994, chapter 9).

A valuation framework has been developed which formally links the dividend model to accounting concepts (Skogsvik, 1994; Ohlson, 1995; for more references, see Bauman, 1996; Walker, 1997). According to this valuation framework, the economic value of a firm's equity is equal to book value plus the present value of all future residual (abnormal) earnings (the residual earnings model).²² Another fundamental approach to equity valuation that has received a great deal of interest among practitioners during the 1990s is the discounted cash flow approach ("the McKinsey model", Copeland *et al*, 2000). In short, this model values a firm's operating assets by calculating the present value of all the future cash flows that these assets will generate (free cash flows). The net debt is then deducted, which gives the equity value. In summary, the valuation attributes that are involved in the three fundamental valuation models are dividends, residual earnings, and free cash flows. Under certain conditions, the three models are theoretically equivalent (Feltham and Ohlson, 1999).

In financial theory, the discount rate used in the present value calculation (i.e., the required rate of return) is used to capture the risk associated with the investment.²³ A natural starting point for determining the required rate of return is the expected variability of the future cash flows that the investor will receive. The risk associated with equity investments can be viewed as the expected variability of future equity returns. This risk can be divided into market risk, associated with market-wide variations, and unique risk, associated with the particular stock. Diversification reduces the unique risk, and in a fully diversified portfolio (the market portfolio) only the market risk remains. The required rate of return for a separate stock can be viewed as a risk-free rate of return plus a risk premium, where the risk premium is often calculated as a market risk premium multiplied by the stock's beta

²² Residual earnings is equal to earnings minus the cost of equity capital times the opening book value.

²³ The condensed and perspicuous description in this paragraph is based on Brealy and Myers (2000, part two).

value. Beta measures how sensitive a separate stock is to variation in the general level of the market.

2.5.2 Fundamentals and share prices

The extent to which fundamentals of different kinds are reflected in share prices is investigated in capital markets research. Francis *et al* (2000) compare intrinsic value estimates derived from the dividend model, the free cash flow model, and the residual earnings model. They report that the residual earnings estimates explain more of the variation in share prices, than estimates from the other two models. In a study based on Swedish data, Runsten (1998) reports that expected residual returns was a significant explanatory variable for the level of share prices. Furthermore, he reports that the weak explanatory ability of accounting earnings reported in previous studies can be better understood by controlling for permanent conservative accounting measurement biases, different types of business activities, business climate, and changes in accounting procedures. The explanatory power was low during business cycle booms, but higher during recessions, suggesting that stock prices might be detached from fundamentals during boom periods (*ibid*, pp 222–223, 291).

Most empirical share price research has focused on explaining returns on the basis of share price changes. In studies applying an informational (signaling) perspective, the main explanatory variable has been the change in unexpected earnings,²⁴ generating earnings response coefficients (ERC) in the regressions (beginning with Ball and Brown, 1968). This research approach has been criticised for generating poor results (Lev, 1989, see also section 1.1), and the results have also been suggested to be of little use to practitioners (Penman, 1992). During the 1990s, a measurement perspective became more common in empirical share price research (beginning with Easton and Harris, 1991; Easton *et al*, 1992; Warfield and Wild, 1992) and research consequently began to focus on explaining value and value changes. Runsten (1998) applies a measurement perspective and hypothesises, on the basis of a residual-earnings-type of valuation model, that value change is a function of actual performance (change in book value) and the change in

²⁴ Unexpected earnings is the difference between actual earnings and expected earnings according to the applied expectations model.

expected performance (measured as the change in expected residual earnings). He reports that the explanatory power of the model increases and the change in book value became more significant as the time period is prolonged. However, the change in expected residual earnings become more significant as the time period was shortened. Runsten writes (*ibid*, p 293):

“One conclusion is thus that in the short run, changes in the expectations of the future prospects of a specific firm’s ability to deliver abnormal performance have a very strong impact on price changes. As the time interval is prolonged, created and retained value as described by growth in book value of equity becomes an increasingly important explanatory variable.”

These results suggest that a distinction must be made between a long-term focus and a short-term focus.

2.6 Behavioural finance research

During the last two decades, a new area called behavioural finance has emerged in the literature that relates information to investment action (see Olsen, 1998). Section 2.6.1 provides some theoretical background to the development of behavioural finance literature. Section 2.6.2 includes some basic results regarding how investors and analysts behave. Finally, three concepts in behavioural finance literature are described in separate sections: herding, investor sentiments and contrarian investment strategies.

2.6.1 Theoretical background

Most of the behavioural research regarding how information relates to stock investments could be characterised as decision-oriented research. The dominant normative decision theory is the rational decision model,²⁵ in which the individual is assumed to consistently choose the available decision alternative that generates the highest expected utility, given his/her value system (preferences). Under certainty, the decision-maker is presumed to know both the alternatives and their outcomes at the time of the decision. In psychology, the rational decision model could be linked to behaviourism, where information and behaviour are viewed as mechanically linked (stimuli-

²⁵ For descriptions, see Gärdenfors and Sahlin (1988) and Raiffa (1968).

response), and the focus is exclusively on manifest variables (McQuail, 1994). In normative behavioural theory, uncertainty is defined as an unknown probability distribution across future states of the world (Connolly, 1977, p 206). The concept of risk requires the assignment of some probability for an uncertain event to occur (*ibid*). These definitions indicate that uncertainty and risk relate to the future (the time dimension is very important), and can be thought of as measurable in terms of probabilities, and that the future uncertain world can be divided into different identifiable states. In economics, the rational decision model has been developed in order to take uncertainty into account (see Hirshleifer and Riley, 1979). Two branches of literature here are (a) market uncertainty: when one's own position is certain, and the uncertainty concerns how other economic agents will behave on the market and (b) event uncertainty: when there is uncertainty about exogenous events such as "Will the crop be large or small?" or "Will taxes be cut?" Somewhat related to the market uncertainty problem, agency theory began to develop in the early 1970s. According to agency theory, uncertainty about how other economic agents will behave is reduced by devising contracts that regulate the relationship between the principal and the agent (see Strong and Waterson, 1987).

Behavioural decision researchers have questioned the empirical validity of the rational decision model and the normative views of uncertainty and risk (some early critical works are Simon, 1945, 1955; March and Simon, 1958; Cyert and March, 1963). For behavioural finance research, the psychology-based works by Tversky and Kahneman have been particularly important. Tversky and Kahneman (1974) is a pioneer work in the area of cognitive biases and heuristics. Prospect theory is another important contribution (Kahneman and Tversky, 1979); in brief, this theory suggests that people are risk averse for gains but risk seeking for losses.²⁶ In economics and finance, risk aversion is often assumed because of individuals' decreasing marginal utility of wealth. Proponents of prospect theory suggest that risk aversion should be replaced by loss aversion (Wärneryd, 1996, p 751).

²⁶ More specifically, prospect theory suggests that people are risk averse for gains with high probabilities and for losses with low probabilities, and risk seeking for gains with low probabilities and losses with high probabilities (Tversky and Kahneman, 1992).

2.6.2 Some basic results regarding investors and analysts

Sirri and Tufano (1993, 1998) investigate what is decisive when people choose unit trusts, and report that a key variable is information about the fund's prior performance. This implies that a good performance will probably increase the future money inflows to the fund. Brown *et al* (1996) hypothesise that the annual performance of the unit trust is the most important figure for fund investors and information intermediaries, and that a fund manager will adapt his/her behaviour to the relative performance of his/her unit trust during the year. Brown *et al* report that mid-year losers tended to increase fund volatility in the latter part of the year to a greater extent than the mid-year winners. This can be interpreted to mean that the annual performance figure is so important that the unit trusts are prepared to take higher risks in order to do well in the competition for fund savers.

Sias (1996) studies institutional investors' preferences for "riskier" versus "safer" equities, and hypothesises a preference for less risky stocks on the basis that many institutions are governed by "prudent man" rules. He examines 15 years of weekly returns, annual institutional shareholdings, and annual market capitalisation for all NYSE-listed stocks. Contrary to his hypothesis, his results show a positive association between institutional ownership and volatility, when controlling for market capitalisation. Pålsson (1989) studies 38 Swedish unit trusts, and reports that these in general had rather low beta values, indicating cautious investment strategies compared with the index portfolio.

Brennan (1995, pp 70–71) argues that institutional investors are not acting in the best interest of their stakeholders, but for the benefits of the portfolio managers. He refers to Athanassokos (1992, p 77), who writes:

"The pattern of institutional investing...seems to be related to the nature of the compensation system in the securities industry, conflict of interest considerations, and attempts by portfolio managers to maximize their own utility rather than that of their claimholders."

Brennan also refers to anecdotal observations of fund managers being unwilling to diverge very far from the consensus asset allocation, even though doing so could be favourable from the client's risk/return point of view.

Much research has focused on external analysts' forecasts. A major result from this research is that, in general, analysts' forecast accuracy is superior to that of mechanical models (see Givoly and Lakonishok, 1984; Schipper, 1991; Peek, 1997). Another property of external analysts' forecasts is the presence of a systematic optimistic bias. One branch of studies tries to explain this optimistic bias by referring to incentive structures (reporting biases). For example, it has been suggested that analysts include an optimistic bias in order to get or maintain good relations with management (Francis and Philbrick, 1993; Das *et al*, 1998). The optimistic bias is also dealt with in the processing bias literature, in which the underlying idea is that analysts are not making the biases "on purpose", but are subject to biases even though they are "doing their best" (see Peek, 1997).

With regard to the present study, the most important issue concerns the impact that forecasts and external analyst advice in different forms have on institutional investors. Kim *et al* (1996) study the relationship between forecast revisions and trading volumes for large versus small traders. Their results indicate that large investors trade more intensely on costly information such as revisions of external analysts' forecasts than do small individual investors (*ibid*, p 1054). On the basis of an extensive empirical study, Barker (1998) suggests that external analysts play an important role in two different ways. Firstly, they responded quickly to news, which they then "sold" as quickly as possible to their clients. Secondly, their analyses constituted an essential benchmark for fund managers against which they could test their own private information. In other words, fund managers needed the external analysts in order to have a measure of the consensus beliefs of the market (*ibid*, p 16). However, according to Barker, fund managers found "raw" information flowing directly from companies to be of considerably greater importance than processed information generated by external analysts.

2.6.3 Herding

During the 1990s, a number of authors used the concept of herding to describe the tendency of participants in capital markets to move closer to the consensus rather than standing out as extreme. Devenow and Welch (1996, p 604) suggest that herding could be defined more specifically as "behavior

patterns that are correlated across individuals and which can lead to systematic erroneous decision-making by entire populations". Scharfstein and Stein (1990, p 465) trace the origins of the herding literature to Keynes (1936):

"A contrasting view [compared to classical economic theory] is that investment is also driven by group psychology, which weakens the links between information and market outcomes. In the *General Theory*, John Maynard Keynes...expresses scepticism about the ability and inclination of 'long-term investors' to buck market trends and ensure efficient investment. In his view, investors may be reluctant to act according to their own information and beliefs, fearing that their contrarian behavior will damage their reputations as sensible decision-makers"

A famous metaphor is Keynes's (1936) comparison between the stock market and a beauty contest, where judges pick who they think other judges will pick rather than who they consider to be most beautiful.

In sum, the empirical results have provided some support for herding both among investors and analysts (see Devenow and Welch, 1996; Graham, 1999; Wermers, 1999). Sias and Starks (1997a) report that the degree of herding was higher in stocks dominated by institutional investors, and they interpreted this to mean that institutional trading as such reflects information and increases the speed of price adjustment. Using quarterly data regarding US unit trusts' shareholdings 1975–1994, Wermers (1999) reports a low average level of herding;²⁷ an earlier similar study on pension funds (Lakonishok *et al*, 1992) reported roughly the same level. Wermers' results further suggest that the levels of herding are much higher in small stocks and for growth-oriented funds. On the basis of a theoretical analysis, and a comparison with prior empirical research, Trueman (1994, p 115) reports that analysts have a tendency to report forecasts similar to those previously released by other analysts, and that analysts in some cases will choose to release earnings forecasts that do not differ greatly from prior expectations even though their private information justifies more extreme earnings forecasts.

²⁷ According to Wermers (1999, p 593), the used herding measure of 3.4% for the whole sample on average could be interpreted as follows: if 100 funds trade a given quarter, then approximately three more funds trade on the same side of the market than would be expected if each fund randomly and independently chose stocks.

One proposed explanation for herding is the reputational concerns of decision-makers (Scharfstein and Stein, *ibid*). Portfolio managers may disregard their private information and trade with the crowd due to the reputational risk of acting differently from other managers (see Graham, 1999; Wermers, 1999). Olsen (1996) proposes a similar explanation for herding among analysts (*ibid*, p 37):

“...analysts tend to be judged more by the degree to which their forecasts conform to those of their colleagues than by their accuracy. In such a situation, forecasters will seek to protect their human capital by issuing forecasts that are in line with the consensus.

Stickel (1990, 1992) argues, on the basis of empirical results, that analysts with a better reputation are less likely to “follow the crowd”.

Somewhat related to the reputational explanation, Scharfstein and Stein (1990) also suggest that when decision-makers have systematically unpredictable components of investment outcomes in common, they will herd in order to get to “share the blame” with the others.

Certain explanations of herding refer to the information that investors and analysts use. One proposed explanation is that portfolio managers trade together because they receive correlated private information (see Wermers, 1999, p 582). Another proposed explanation is that portfolio managers may infer private information from the prior trades of better-informed portfolio managers and trade in the same direction (*ibid*). A third proposed explanation for why a decision-maker may choose to follow the crowd is that the existing aggregate information can become so overwhelming that the decision maker’s single piece of private information is perceived not to be strong enough to reverse the decision of the crowd (see Graham, 1999, p 239). With regard to analysts, it has been suggested that although an individual analyst wants to discover information first, this information must be of a type that s/he believes that others will also examine (*ibid*).

Another type of explanation for herding behaviour among institutional investors is that they may share an aversion for stocks with certain character-

istics, such as low liquidity stocks or less risky stocks (see Wermers, 1999, p 582).

Some researchers have focused on the underlying phenomena at the individual level that might lead to herding (see Shiller, 1995). On the basis of a psychological experiment study, Asch (1952) suggests that the participants “herded” as a way of handling the conflict that arose when they disagreed. According to Asch, it was the social pressure that brought the participants’ answers closer together. The second phenomenon is based on social psychology and anthropology, and has to do with how human beings act in conversations (see Shiller, 1995). During a conversation, people become aware of the emotional support from the other party, and attempt to deal politely with these feelings. One of the rules of polite conversation is respect for a common consensus on the topic of conversation (*ibid*, p 184).

Financial market bubbles (when price rise above intrinsic value) is an area that could be regarded as being related to herding. Berg *et al* (1995) review prior experimental research on market bubbles, and conclude that the subjects in these experiments show a tendency to follow aggregate trends, and when they believe that there are some quasirational individuals who will trade above the intrinsic value, this belief is enough to support a bubble. In economics, both rational and irrational behaviour have been used as explanatory factors for market bubbles (see Lindgren, 1989).

2.6.4 Investor sentiments

According to CoBuild’s dictionary, “sentiment” is an attitude that people have which is based on a mixture of thoughts and feelings. Shiller (1984) describes investor sentiments as market trends of what is “in fashion” among investors. Trading on popular models and trading on noise rather than news are phenomena that have been linked to investor sentiments (Lee *et al*, 1991; see also De Long *et al*, 1990; Black, 1986; Shiller, 1984).

Investor sentiments have been described as causing two families of pervasive regularities in share prices over time (Barberis *et al*, 1998): overreaction of share prices to a series of good or bad news and underreactions of share prices to news such as earnings announcements. An early overreaction

study is DeBondt and Thaler (1985), who report that past winner stocks tended to be future losers, and vice versa. An early underreactions study is Bernard and Thomas (1989), who report that stocks with higher earnings surprises earned higher returns during the period after the earnings announcement. Results from psychological studies have been used to explain the underlying phenomena that cause overreactions and underreactions (Barberis *et al*, 1998; Daniel *et al*, 1998).

Lee *et al* (1991) report that fluctuations in discounts of closed-end funds are to some extent driven by changes in individual investor sentiment. They argue that changes in investor sentiment make the closed-end funds riskier than the portfolios they hold and so cause average underpricing of the funds relative to fundamentals (*ibid*, p 107). Furthermore, Lee *et al* argue that since both closed-end funds and small stocks tend to be held by individual investors, the impact of investor sentiment will also make small stocks underpriced relative to their fundamentals (*ibid*, p 107). Klibanoff *et al* (1998) study closed-end country fund prices, measuring weekly to what extent the share price followed the development of the net asset value (NAV). They report that during a typical week, prices underreacted to NAV changes, while during weeks when there was salient country-specific news (front page of New York Times), prices reacted much more closely to the NAV development.

2.6.5 Contrarian investment strategies

The two preceding sections refer to different kinds of regularities in share prices. If these regularities in fact exist, we need to ask why market participants have not observed them and exploited them. A concept related to this is “contrarian investment strategies” (to invest against the typical investor in the market), developed by David Dreman in the early 1980s. Dreman (1998, p 21) writes as follows:

“My approach will try to accomplish two major functions. Before all else, a successful strategy requires a strong defence: it must preserve your capital. The strategies herein are designed to protect investors from powerful emotional pitfalls. After defence, we need a powerful offence. We achieve this by taking advantage of consistent mistakes made in markets because of predictable behavior

patterns. Both parts of the strategies rely on an understanding of investor psychology.”

Dreman’s books on contrarian investment are written in a practice-oriented manner, but are based to a large degree on behavioural finance research (David Dreman is also the money manager of a firm which implements contrarian strategies). In the academic literature, DeBondt and Thaler (1985) is regarded to be a pioneer contrarian study. They report that excess returns could be earned by buying prior losers and selling short prior winners (see also section 2.6.4). Similar results have also been reported in later studies (see Schiereck *et al*, 1999). Another study of contrarian investment strategies is Lakonishok *et al* (1994), who find some empirical support for their suggestion that value strategies²⁸ yield higher returns than investments in glamour stocks, because value strategies exploit the suboptimal behaviour of the typical investor.

2.7 Position of the present study in relation to prior research

The literature described in this chapter concerns how information relates to equity investment actions. The present study can be classified as empirical research at the disaggregated level (sections 2.1–2.4) that focus on:

- Institutional investor organisations, rather than separate individuals. This implies an emphasis on the context in which equity investment decisions are made.
- Real-world investment actions rather than investment decision-making in general, or in laboratory settings.
- An avoidance of a priori limitations of the information set.

²⁸ Referring to Graham and Dodd, Lakonishok *et al* (1994) explain that value strategies involve buying stocks that have low prices relative to earnings, dividends, book assets or other measures of value (*ibid*, p 1541).

This focus differs from that of most prior empirical studies based on disaggregated data. While four prior studies have had similar ambitions (see section 2.1), the empirical design used in this study (tracing institutional investor organisations' reasons for action on the basis of their actual equity transactions) has not, to my knowledge, been used before. In some respects, the focus of the present study is in line with behavioural finance research in as much as it aims to expand the information set to include information about the contexts in which decisions are made (Olsen, 1998, p 17), and to avoid relying on normative theory such as the rational decision model (see section 2.6.1).

3 Methodology

The empirical study in this thesis is based on case studies of eight large Swedish institutional investors, including document studies and 42 interviews with 17 internal analysts, 14 portfolio managers, six senior investment managers, two portfolio manager assistants, two risk managers and one chief economist. The key aspect of the empirical approach was to base the interviews on equity investment actions that the institutional investors had actually taken. This chapter describes how the institutions were selected and other selection issues (section 3.2), how the data were collected (section 3.3), how the data were analysed (section 3.4), and how the empirical results are presented (section 3.5). With regard to data analysis, a separate chapter describes how the inductive analysis approach was applied in practice (chapter 4). Chapter 3 begins with a methodological positioning of this study (section 3.1).

3.1 Methodological perspective

3.1.1 Core methodological issues

It is strongly argued in methodology literature that considerations regarding the choice of research issue and research method cannot, and should not, be determined without considering the researcher's methodological standpoints in a wider sense (Alvesson and Sköldbberg, 1994). Methodological issues came to the fore in this research project when the empirical design was to be developed. I then chose the case study approach, since I believed that this method best suited my research issue.¹ However, both the specific formulation of the research issue and the methodological choices that it implied, were also influenced by the inductive and qualitative research tradition in the department for Accounting and Managerial Finance at the Stockholm School of Economics (Östman, 1977, 1980; Thorén 1995).

¹ A common opinion in methodology literature seems to be that the character of the research issue should govern the choice of research method, and not vice versa (Alvesson and Sköldbberg, 1994, p 11). Chambers (1980, 1993) has strongly criticised a great deal of accounting research for being technique driven rather than research issue driven.

Burrell and Morgan (1979) describe five important methodological issues for social science, where the researcher will, explicitly or implicitly, take a standpoint: (a) ontology, (b) epistemology, (c) human nature, (d) methodology, and (e) nature of society. While Burrell and Morgan's framework has been criticised for being too simplistic (Wilmott, 1990), it appears to be a widely accepted methodological classification.² According to Burrell and Morgan (1979), the possible approaches with respect to the first four issues (a–d) range from a subjectivist, relativistic position to an objectivist, rationalistic position. Assumptions regarding the nature of society are given a scale of its own, ranging from regulation to radical change.

The pure subjectivist versus the pure objectivist are the extreme positions, but Burrell and Morgan suggest that the assumptions of many social scientists are pitched somewhere in the range in between (Burrell and Morgan, 1979, p 2). Morgan and Smircich (1980) further divide the subjectivist-objectivist scale into six different categories (see also Arbnor and Bjerke, 1994). The category that best corresponds with my perspective is the one which views reality as an evolving process, concrete in nature, but ever-changing in detailed form (Morgan and Smircich, 1980, p 495). In this category, the task of science is to map out the concrete relations, applying a more comprehensive perspective. Research within this category often takes the form of extensive interviews and document analysis in order to explain patterns that have been observed over time (Arbnor and Bjerke, 1994, p 46).

Concerning the nature of human beings, the pure objectivist view regards human beings and their activities as being completely determined by the situation or “environment” in which they are located (Burrell and Morgan, 1979, p 6). This leads over to the rational decision model (section 2.6.1) and the term *homo oeconomicus* (i.e., an assumption of human beings as rational and logical in a way that could be described in mathematical terms). This study does not aim to evaluate whether or not institutional investors act in

² Arbnor and Bjerke (1994) apply the Burrell and Morgan framework in order to describe the overall methodological standpoints in business administration. The Burrell and Morgan framework has also been inspired a number of literature classifications in accounting research: Hopper and Powell (1985), Chua (1986), Laughlin and Lowe (1990) and Belkaoui (1997). Laughlin (1995, p 66) argues that “...[Burrell and Morgan] have indeed isolated many, if not most, of the key domains for choice”.

accordance with the *homo oeconomicus* assumption; nor is the study based on such an assumption. Instead, my view corresponds to the view advocated by Sjöstrand (1987) that regards human beings as complex and interactive.

3.1.2 The inductive research approach

The inductive methodological approach is a key characteristic of this study (see also section 1.2). The analytical tools, from the analytical perspective point of view, are inductive generation of theory on the basis of empirical data, deductive generation of hypotheses on the basis of theory, and empirical tests of hypotheses leading to verification or falsification (corroboration).³ I chose an inductive research approach, because I wanted to trace the reasons for particular investment actions without prespecifying hypotheses of what I expected to find. Critics of the inductive approach argue that since the data are not collected on the basis of prior theory, the outcome might just be empirical correlation without any intrinsic logic (Alvesson and Skjöldberg, 1994). For this reason, I have put a great deal of effort into trying to find the intrinsic logic, and not just the empirical patterns. Alvesson and Skjöldberg (*ibid*, p 42) suggest that “abduction” is an alternative to pure induction and pure deduction:

“Just like induction, abduction starts out from empirical facts, but does not reject theoretical a priori conceptions, and is, in that sense, closer to deduction. The empirical analysis can thus very well be combined with, or be preceded by, studies of prior theory in the literature: not as a mechanical application to separate cases, but as a source of inspiration for the discovery of patterns that generate comprehension. During the research process, there is thus an alteration between (prior) theory and empirical data, where both are successively reinterpreted in the light of each other.”*

On the one hand, abduction seems to describe my approach better than induction. My research issue was developed on the basis of prior research, and I was aware of prior theory when I analysed the empirical data. On the other hand, I invested considerable effort in identifying the empirical patterns in the whole empirical material before I began to make comparisons with prior research. During the analysis phase, I was careful not to try to fit the empirical data into any particular theoretical model, but to let the data speak.

³ See Arbnor and Bjerke (1994).

During the data collection phase, I made a conscious attempt to keep an open mind towards the interviewees' statements describing the rationale behind their actions. Therefore, I believe my approach could better be described as inductive. A justified criticism of my approach, from the analytical perspective point of view, is that I only deal with the first third of a full-cycle research effort (induction, deduction and verification).

3.1.3 Qualitative method

It is my belief that scientific research cannot delimit itself to phenomena that are observable on the surface and quantitatively measurable, such as accounting numbers, stock prices, or the percentage of institutional ownership in companies. I believe prior research has been too concerned with the immediate and visible effects of financial information, and I see a need for a deeper study based on qualitative data. According to Alvesson and Skjöldberg (1994, p 27), a qualitative method need not be inconsistent with an analytical perspective:

“If there are hidden patterns...that govern the observed parts of reality, and if the latter can be explained by investigating the former, this would seem to be a legitimate area for research. Rather than starting out with survey measurements of large amounts of empirical data, or with guesses about relationships between such data – both positivistic ways of progressing – another path becomes more plausible: to carry out intensive studies of a smaller number of cases in order to...get to the underlying patterns that might be reflected in the surface structures...”*

In qualitative inductive empirical research during the past 25 years or so, the work of Glaser and Strauss (1967), and the concept of grounded theory, has become increasingly influential.⁴ The grounded theory approach is based on the overall idea to let data speak. The focus is on inductive theory generation rather than on theory verification. In practice, the empirical research work should begin with intensive studies of unique cases (data collection), followed by the comparison of a number of such cases (data analysis). In the

⁴ In the business administration area, grounded theory research has been encouraged by a number of authors (e.g., Tomkins and Groves, 1983a, 1983b; Laughlin, 1995; Parker and Roffey, 1997; Orton, 1997), but Glaser and Strauss (1967) have also been criticised on a number of points (see Alvesson and Skjöldberg, 1994; Parker and Roffey, 1997; Orton, 1997). According to Parker and Roffey (1997, p 213), there are still very few grounded theory studies in the published accounting and management research literature.

present study, I rely on some of Glaser and Strauss's (1967) basic ideas. In particular, during the analysis of the empirical data, I aimed to avoid prior commitment to any theoretical model (Glaser and Strauss, 1967; Van Maanen *et al*, 1982).

3.1.4 Case studies

For inductive, qualitative studies, there seem to be few alternatives to case studies. Sometimes field studies and action research are referred to as possible alternatives (Bruns and Kaplan, 1987), but according to Pihlanto (1994, p 372), such distinctions are difficult to make because, for example, the studied units could still be referred to as "cases". Yin (1989, pp 19–20) gives the following description of when case studies are suitable:

"The case study is preferred in examining contemporary events, but when the relevant behaviours cannot be manipulated...the case study's unique strength is its ability to deal with a full variety of evidence – documents, artefacts, interviews, and observations."

It would appear, therefore, that the use of case studies in this study is quite appropriate in that the relevant behaviours could not be manipulated (real-world context). I have also used multiple sources for data collection, namely document studies and interviews.

3.2 Selection issues

The selection issues concern the primary selections of institutional investors and quoted companies, and the subsequent selections of portfolios, time periods and interviewees. To begin with, a definition of institutional investors was needed. I chose to use the Hedlund *et al* (1985) definition of institutional owners as a starting point, and then made certain limitations for the purpose of this study. A distinction can be made between private and institutional investors, where the former manage their own money while the latter manage other people's money. Another distinction can be made between ultimate investors (such as households, foundations and general government) and financial intermediaries who invest by order of ultimate investors (such as pension funds and unit trusts). In other words, households are private investors while all financial intermediaries are institutional in-

vestors. The remaining question concerns how to classify ultimate investors, such as foundations and general government, who are legal persons. The money belongs to the legal person, but the staffs that make the investment decisions still handle other people's money. Hedlund *et al* (1985) solved this by viewing all legal persons as institutional owners (investors) except when private persons had chosen to act via legal persons. On the basis of this definition, several limitations were made.

Firstly, the study was limited to Swedish institutional investors. A study of institutional investors of another nationality could have been just as interesting from a research point of view. However, given the confidential nature of the data I was to collect, it would have been difficult to gain access to foreign institutional investors. Furthermore, practical considerations regarding time consumption, costs and language, also spoke in favour of studying Swedish institutional investors. Secondly, the study was limited to institutional investors who could be expected to have considerable impact on the share price determination process. The reason for this was to enable a discussion regarding market level implications. I assumed that institutional investors with the largest equity transaction volumes would have the greatest impact on the determination of share prices (see Forsgårdh and Herten, 1975, p 72), but such trading volume data regarding different institutions was unavailable. I then looked at the size of the institutional investors in terms of their total investments in Swedish quoted equities, and chose to focus on large institutional investors. The size of the institutional investor could be expected to have a positive correlation with equity transaction volume, but a particular institutional investor might also be inactive. Several of these were in fact identified and taken out, namely those who were not expected to follow a strict financial logic (see section 1.1). To operationalise this, I applied Hirschman's (1970) concepts of exit, voice and loyalty as described in Hedlund *et al* (1985).⁵ This led to the exclusion of several non-exit-oriented institutional investors (non-financial companies, voice-oriented foundations and voice-oriented investment companies). What was left was a selection of large, Swedish, exit-oriented institutional investors. I am aware, however, that as the term "oriented" indicates, exit-oriented institutional investors will at times also consider voice and loyalty. In 1993, a

⁵ See also section 2.1.5

first selection list of the 25 largest, Swedish, exit-oriented institutional investors was compiled.⁶

3.2.1 Selection of case companies

The choice of case companies was discussed with a senior faculty member at the Stockholm School of Economics, Doctor honoris causa Sten Wikander. He also helped me make initial contact with all of the selected institutions.

Pilot study

The purpose of the pilot study was to determine whether the empirical design of the study was appropriate (see also Yin, 1989, pp 59–60). In October 1993, a case company for the pilot study was chosen from the selection list. I visited the institution and presented the project to a senior investment manager; the institution agreed to participate in the research project (case company Alfa, see table 3.1). Data collection was carried out during November and December 1993, and the empirical data were analysed during the first half of 1994.

Main study, first selection

During October 1994, case companies for the main study were selected. For this purpose, the selection list was updated, and the size criterion was changed. Instead of comprising the 25 largest Swedish, exit-oriented institutional investors, the list was now made up of the Swedish, exit-oriented institutional investors who on December 31, 1993, owned more than SEK 1 billion in Swedish quoted equities. This was considered to be a reasonable minimum size. I also needed to determine how many case companies to select. The upper limit was set by what I thought I could handle as a single researcher, and I decided that a total of eight case companies was reasonable. All seven case companies for the main study were contacted over a one-month period, and I let the data collection in the different companies

⁶ A problem when compiling the selection list was that Swedish public statistics on the size of Swedish institutional investors are not complete. For example, foundations are generally missing, and often not all of an institution's managed portfolios are included. This problem was solved by also using other sources, such as annual reports and business press articles. With regard to foundations, *Affärsvärlden* (1984) was an important business press article.

Table 3.1 Institutional investors that agreed to participate in the research project

Case company	Selection phase	Legal form
Alfa	Pilot study	Life insurance company
Bravo	Main study, first selection	Fund management company
Charlie	Main study, first selection	Investment company (closed-end fund)
Delta	Main study, first selection	Fund management company
Echo	Main study, first selection	Life insurance company
Foxtrot	Main study, first selection	Non-life insurance company
Golf	Main study, second selection	Foundation
Hotel	Main study, second selection	Life insurance company/ Fund management company

overlap. I was afraid that if I took one case company at a time, the data collection process would become very lengthy. The seven institutional investors selected for the main study were two life insurance companies, one non-life insurance company, two fund management companies, one investment company (closed-end fund) and one pension fund.⁷ The pension fund and one of the life insurance companies did not agree to participate in the research project, while the remaining five agreed to participate (Bravo, Charlie, Delta, Echo and Foxtrot; see table 3.1). The data were collected between October 1994 and February 1995.

Main study, second selection

At the beginning of January 1995, I decided to make a second selection for the main study. I had then conducted more than 95% of the interviews in the five main study case companies referred to above, and I had some preliminary ideas about my empirical findings. I had observed some clear patterns in the empirical data that applied to all of the six case companies studied so far, but I had also observed differences, in two respects, that I wanted to investigate somewhat further:

⁷ No foundation was included for two main reasons. Firstly, it was difficult to get information about the existence and the size of all the different foundations. Secondly, the foundations on the selection list were considered to be impossible to access. Two life insurance companies and two fund management companies were chosen since these two types of institutional investors dominated the selection list.

1. Investment decision-making seemed to be influenced by whether or not the institutional investor had internal analysts who made analyses solely on the basis of information from the quoted company. So far, this was the case in four of the companies.
2. The legal form appeared to be important in as much as the extent of legal restrictions affected investment decision-making.

On the basis of these differences, I concluded that two more case companies were needed. They should preferably be institutional investors who did not have internal analysts of the kind described in point 1, or who had a legal form implying fewer restrictions than the institutional investors studied so far (point 2). A foundation was identified that matched both these requirements.⁸ The second selected institutional investor was a rather large life insurance company that also had links to a fund management company, and that had no internal analysts of the kind described in point 1. Both agreed to participate in the research project (Golf and Hotel, see table 3.1), and the data were collected between March 1995 and May 1995. The data from the seventh and eighth case companies appeared to confirm the previously identified difference concerning company analyst resources, and the general pattern that had emerged from the six first case companies. Consequently, no more case studies were conducted.

Theoretical sampling logic

Throughout the data collection process, I aimed to capture as many aspects as possible of institutional investor equity investment decision-making. With regard to case company selection, this implied a stepwise procedure, where the need for more and different case companies was weighed against what had emerged so far in terms of conceptually relevant similarities and differences. This way of working is based on the Glaser and Strauss (1967, p 58) theoretical sampling logic, which suggests that the researcher should systematically calculate where a given order of events is – or is not – likely to take place, given the data collected and analysed so far.

⁸ One problem was that this foundation's size on December 31, 1993, did not fulfil the size criterion. However, during the first half of 1994, the foundation had passed SEK 1 billion in Swedish equities, and so the size criterion was considered to be fulfilled.

During the first selection of institutional investors for the main study, this was primarily achieved by striving to include case companies of many different legal forms.⁹ This was a clear-cut and manifest variable, and it seemed reasonable to expect that differences in legal conditions would have some impact on the preconditions for investment decision-making. In addition, after the pilot case study, I began to consider other aspects that might be important: the alternative structure that the institutional investor faced, the institutional investor's own cash flow situation, and the institutional investor's prior performance. The first two aspects clearly affected the investment decisions studied in Alfa (see Hellman, 1996), while the third aspect was only a vague idea.¹⁰ With regard to both "alternative structure" and "cash flow situation", almost all of the institutional investors on the selection list had more than one portfolio, and the alternative structures and the cash flow situations varied across the portfolios. Therefore, I chose to consider these aspects in more detail during the selection of portfolios (see section 3.2.2). With regard to "prior performance", I reasoned that since I was to select as many as seven institutional investors for the main study, they should not all be equally successful. As a consequence, I was careful to ensure that the selection did not become too biased towards successful institutional investors.¹¹

3.2.2 Selection of quoted companies

I decided to focus on investment decisions regarding shares concerning Swedish quoted companies.¹² To be able to ask relevant follow-up questions during the interviews, I needed good background knowledge of the quoted companies that the investment decisions concerned. My knowledge of Swedish quoted companies would best enable this. However, the pilot study showed that other assets and foreign equities were considered when deciding on Swedish equities (see, for example, the Ericsson example in Hell-

⁹ The above description of the second selection of case companies for the main study shows how the theoretical sampling logic was used in this phase.

¹⁰ Alfa had been successful for a number of years preceding the study, and this encouraged the senior investment managers. I wondered whether this affected their decision-making.

¹¹ A comparison of the case companies' past total portfolio returns and equity portfolio returns showed a relatively large variation across the companies. For anonymity reasons, the return figures are not included in this thesis.

¹² The selection of equity investment actions for the interviews is described in section 3.3.2.

man, 1996). Therefore, distributions across assets and countries were also used as background material during the interviews. To a large extent, such data were collected from public sources (financial reports and the public archives at Finansinspektionen, the Swedish Financial Supervisory Authority).

3.2.3 Selection of portfolios, time periods and interviewees

During my first meeting with an institutional investor, I explained the purpose and empirical design of the research project, the type of documents I needed, and whom I wanted to interview. Confidentiality issues were also discussed. These meetings were critical in that I was not in a position where I could be sure of getting exactly what I wanted, or even of getting the institution to agree to participate in the research project. Therefore, I needed to be very careful. On the one hand, I needed to specify some minimum requirements that had to be met, and if possible, I also wanted information about more portfolios as well as internal documentation such as internal analyst reports. On the other hand, I was afraid that the institution might be put off by these requirements and refuse to participate. My minimum requirements were (a) a list of the transactions in Swedish equities for at least one of the managed portfolios, (b) the list should cover a period of at least three months,¹³ and be as recent as possible,¹⁴ and (c) permission to conduct interviews with the staff that had somehow participated in the investment decision-making processes.¹⁵ During these meetings, the contact persons

¹³ With respect to the chosen time period, I needed a period long enough to include a reasonable number of investment decisions that could serve as bases for the interviews. I used three months in the pilot study, and thought that that had worked well.

¹⁴ I expected the interviewees to remember more if the transaction had occurred close in time.

¹⁵ This demand could be fully met in five of the case companies. In the other three companies, I did not interview five people who had been involved in the equity investment decisions. There were different reasons for this: two analysts had resigned; one analyst was on long-term leave; I was not allowed to interview one portfolio manager assistant and one analyst. The portfolio manager assistant primarily dealt with arbitrage deals. I talked to him for 15 minutes and took notes, and I decided that an interview was not necessary. The analyst was newly employed, and it was felt that I had already interviewed so many people in this organisation. In that situation, I refrained from trying to procure an interview. The three case companies that did not meet the interview criterion were also the three largest organisations.

(senior investment managers) appeared to be especially concerned about how many portfolios I wanted to study, how many people I wanted to interview, how recent the time period was, and other confidentiality aspects. In retrospect, I could probably have asked for more information from some of the institutional investors, although I believe that at least one of the two institutions that refused to participate might have agreed if I had lowered my requirements regarding the age of the list of transactions.

With regard to the selection of observation periods, there was a primary observation period (the period for which I received transaction lists; see table 3.2) and a secondary observation period (at a minimum, two years before the beginning of the primary observation period). I tried to get a primary observation period that ended soon before the interview period began (the latest or second latest end of month). This was accepted in all of the case companies except Delta, where the end of the primary observation period was set at about four and a half months before the first interview.

Table 3.2 Primary observation periods in the case companies

Case company	Primary observation period	Number of observation days	Interview period
Alfa	Aug 93 – Oct 93	65	Nov 93 – Dec 93
Bravo	Jul 94 – Sep 94	63	Nov 94
Charlie	Jul 94 – Sep 94	63	Nov 94 – Dec 94
Delta	Jan 94 – Jun 94	125	Nov 94 – Feb 95
Echo	Jul 94 – Sep 94	63	Nov 94 – Dec 94
Foxtrot	Jul 94 – Oct 94	84	Dec 94
Golf	Jan 94 – Feb 95	292	Mar 95
Hotel	Aug 94 – Feb 95	125	Apr 95 – May 95

I generally asked for transaction lists covering three months. However, I asked Delta for a list covering six months since the primary observation period was moved backwards. A senior Foxtrot investment manager took the initiative to give me four months; in the second part of the main study (Golf and Hotel), I asked for six months. Golf gave me free rein to collect

data from their archives, and I then set the primary observation period to 14 months. With respect to the secondary observation periods, I had realised during the pilot study that I needed to follow the portfolio structures for longer than three months if I was to capture the decision-making context. I therefore collected public information regarding the portfolios, and used this during the interviews. This material showed the portfolio holdings of the separate equities at the public disclosure dates.

Table 3.3 Alternative structure and cash flows in the studied portfolios

Case company	Portfolio	Available investment alternatives				Cash flow situation during the primary observation period
		Swedish equities	Foreign equities	Interest-bearing securities ¹	Property	
1	1	Yes	No	No	No	About zero net
2	2:1	Yes	No	Yes	No	About zero net
	2:2	Yes	No	Yes	No	About zero net
3	3	Yes	Yes	Yes	Yes	About zero net
4	4:1	Yes	Yes	Yes	Yes	About zero net
	4:2	Yes	Yes	Yes	Yes	About zero net
	(4:3)	Yes	Yes	Yes	Yes	Slightly positive
	(4:4)	Yes	Yes	Yes	Yes	Positive
5	5	Yes	Yes	Yes	Yes	Slightly positive
6	6:1	Yes	Yes	Yes	Yes	Slightly positive
	6:2	Yes	No	No	No	Positive
7	7	Yes	Yes	Yes	Yes	Positive
8	8:1	Yes	Yes	Yes	No	Positive
	8:2	Yes	Yes	No	No	Negative
	8:3	Yes	Yes	No	No	Negative
	8:4	Yes	No	No	No	Negative

¹ In excess of buffer liquidity

A selection of portfolios needed to be made. One of the basic requirements was that Swedish quoted equities were an available investment alternative in the portfolio. I also aimed for variation in alternative structure and cash flow situation (see section 3.3.1). Table 3.3 shows that a reasonable balance was

achieved with respect to alternative structure.¹⁶ Five of the case companies were allowed to invest in all four alternative categories, and in one case company (no. 8), I had the opportunity to study portfolios with different numbers of available alternative categories. I received transaction lists for the accepted portfolios. On the basis of public sources, I also collected data about the portfolios that were not included in the study (secondary portfolios). These data were used as background material, and they turned out to be particularly useful with regard to case company 4 (the two secondary portfolios in case company 4 are included in brackets in table 3.3). With regard to the direction of the case companies' cash flows only case company 8 had net outflows during the primary observation period.

3.3 Data collection

3.3.1 Document studies

The documents that were studied included documents describing the case companies and their investments (see table 3.4). Each case study began with the collection of the transaction list (see 1/a in table 3.4). To obtain an overview of the transactions, the data on this list were put into a spreadsheet file. Before the first interview, the transactions were classified according to share type, quoted companies and industries; summaries were printed out and used during the interviews. Portfolio structure data were also collected before the interviews and put into spreadsheet files (see 1/b in table 3.4). Summaries of these data were printed out and used during the interviews.

I also tried to obtain more internal documents when I met with contact persons and interviewees (see 1/c in table 3.4). In some of the companies, I was shown internal documents during the interviews. I then wrote a description of the document during the interview and produced a clean copy afterwards.

To conduct useful interviews, I knew it was essential to have good background knowledge of the quoted companies and the equities that the investment actions concerned. Therefore, I collected documents regarding quoted

¹⁶ For anonymity reasons, the case companies do not appear in the same order as in table 3.1.

Table 3.4 Documents used in this study

Type of document	Descriptions of the documents
<i>1. Documents describing the case companies and their investments</i>	
(a) Transaction list	The transaction list needed to include the investment date, ^I the name of the stock, the type of transaction (buy or sell), the number of shares and the transaction amount. ^{II} Some of the transaction lists also included details such as the commission amount, the realised profit/loss and the name of the broker. The transaction list was an internal confidential document, and I collected the list personally at least one week before the first interview.
(b) Documents concerning the case companies' portfolio structures	These documents were used to identify the portfolio structures at different points in time across Swedish companies/equities, different industries, different countries and different assets. Five of the case companies provided internal data of this kind. I also used public data about all the case companies collected from financial reports and the public archives at the Swedish Financial Supervisory Authority (Finansinspektionen). When possible, the portfolio structures were traced about four years back in time.
(c) Other internal documents	Other collected internal documents were: models for company analysis, forecasting and valuation (two case companies); written internal analyst reports (two case companies); internal goals and restrictions documents (two case companies); notes or minutes from investment decision meetings (two case companies), the Swedish equity portfolio overview used at the equity department's weekly meetings (one case company).
<i>2. Documents regarding companies/equities</i>	
(a) Financial reports	The latest annual report, and interim reports published during the primary observation period, for the quoted companies that the investment actions concerned.
(b) Share price information	Share price graphs covering the previous 1½-2 years (Source: Dextel Findata).
(c) Pilot study: business media news	News published in five business media ^{III} between August and October 1993, regarding the 16 quoted companies with the most traded stocks on the Stockholm Stock Exchange between January and June 1993. ^{IV} In total 1,176 news items or articles relating to these 16 companies were collected.
(d) Main study: press releases and other documents received by fax and mail	In October 1993 I wrote a letter to the person responsible for investor relations in each of the above 16 quoted companies. In this letter, I described the research project and asked to be put on the fax and mailing lists on the same terms as their institutional investors. This worked out well, and I was on these lists for the duration of the main study (May 1995). Since I began to receive press releases, financial reports etc about a year before the start of the main study, all primary observation periods were fully included.
(e) Main study: News from the news agency Direkt	When I believed it was necessary, I collected additional information from the Swedish news agency Direkt about the quoted companies for the primary observation period.

^I This refers to the date when the investment was made. The payment date was generally three bank days later.

^{II} The transaction amount generally included commission.

^{III} The business media were Dagens Industri, Finansstidningen, Svenska Dagbladet (Näringsliv), Affärsvärlden and Veckans Affärer (Swedish business newspapers and magazines).

^{IV} Astra, Ericsson, Volvo, ASEA, Investor, Skandia, Electrolux, S-E-Banken, STORA, Handelsbanken, Sandvik, SKF, SCA, Hennes & Mauritz, Procordia and Atlas Copco (Source: Stockholm Stock Exchange).

companies and their stocks before the interviews (see table 3.4) and used these documents to update myself on the quoted companies, and as tools during the interviews (see section 3.3.2). In addition to financial reports and share price information (see 2/a and 2/b in table 3.4), I saw a need for knowing about any news that had appeared in the media about the quoted companies during the primary observation period. In the pilot study,

I manually collected all the news that had been published in five business media about 16 quoted companies (see 2/c in table 3.4). However, I soon realised that I needed a more efficient method for the main study. Therefore, I asked the 16 quoted companies to include me on their fax and mailing lists on the same terms as their institutional investors, and this worked out well (see 2/d in table 3.4). To prepare for the interviews, I summarised the information that the company had published during the primary observation period, and used the summary as a tool during the interviews (see section 3.3.2).¹⁷ In some cases, I also collected news from the Swedish news agency Direkt (see 2/e in table 3.4).

3.3.2 Interviews

The applied empirical design, with interviews linked to real-world events in the past, is based on a data collection technique called retrospective verbal protocol analysis (Thorén, 1995, pp 37–38). Thorén argues that this interview design is well suited to a wide information concept (*ibid*, p 38). This is important in this study, where one of the aims is to avoid a priori restrictions regarding the “allowed” information set. Retrospective verbal protocol analysis stems from verbal protocol analysis (Simon, 1979; Ericsson and Simon, 1984), where the researcher records the subjects thinking aloud when dealing with a contemporaneous task. In a field environment, this would require direct observation, and that was not considered to be a feasible data collection method in this study. The possibilities of gaining access to institutional investors’ contemporary investment decision-making were expected to be very limited.

¹⁷ In some cases, I also prepared summaries for parts of the secondary observation period, when interesting investment decisions appeared to have been made during that period.

The interview guide

Table 3.5 shows the structure of the interview guide. The questions based on actual investment actions (question type 3 in table 3.5) are linked to empirical purpose E1. The non-investment-decision-specific interview questions (types 4a–4c and 2b) are linked to empirical purpose E2 concerning institutional investors' internal systems for analysis and decision-making regarding equities. These interview questions focus on the use of financial information from the companies' financial reports, the dealing with uncertainty, investment goals and personal incentives. The two latter topics, investment goals and incentives, are key aspects in decision research, and I expected them to be part of the institutional investors' internal systems for handling information.

The interviews in the present study could be described as topical, in the sense that they focused on specific information regarding particular topics. Rubin and Rubin (1995, p 197) describe what characterises this kind of interview as follows:

“During the interview, the researcher guides the discussion to keep on target and obtain answers to the questions. The purpose is to avoid omitting a crucial step in a process or a critical event in a decision, lest the resulting narrative will be misleading.”

This description corresponds well with how the interviews were conducted in the present study. Furthermore, the degree of structure is an important aspect when conducting qualitative interviews. Kvale (1997, pp 121–122) describes this as follows:

“The questions become different if the interview seeks to generate spontaneous descriptions of the lived world, instead of trying to make a concept analysis of the interviewee's conceptions of a subject...the more spontaneous interview procedure, the higher the probability for spontaneous, lively and unexpected answers from the interviewee. And vice versa: the more structured the interview situation is, the easier it is to structure the interview during the analysis phase.”*

The part of the interview concerning investment actions could be described as more spontaneous and conversation-like. Although the interviews were prepared in detail with respect to the investment actions the interview

Table 3.5 Structure of the interview guide

Type of question	Description
1. Presentation of the study	
2. Introductory questions	a) The interviewee's background (education and previous employment) and work assignments. b) Questions about the presence, content and background of overall investment goals.
3. Investment-decision-specific questions	a) The interviewee is asked to describe the causes of a series of transactions (including one or more transactions) during the primary observation period, and in some cases the causes of changes of shareholdings during the secondary observation period. After the interviewee had described such causes, these were followed up in more detail. When financial information about the company was linked to the cause of action, this was followed up particularly carefully. This included follow-up questions about the equity valuation methods that had been used. Thereafter, if the investment action concerned one of the 16 quoted companies (see above), a chronological list of news (including the dates of financial report releases and shareholders' meetings) from the quoted company was shown to the interviewee, and s/he was asked if this news had affected him/her in some way. The answers were followed up. The same procedure was repeated in its entirety for a number of investment actions. ^I
4. Non-investment-decision-specific questions	a) Questions regarding the use of financial reports and other information sources. An interim report (or closing communiqué) ^{II} was shown to the interviewee and s/he was asked to describe what happened at the institutional investor's reception of this financial report and how the information was included in the analysis of the company. If s/he could not remember this particular financial report, s/he was asked to describe the typical procedure. The same type of question was asked regarding a selected annual report ^{III} . Regarding the annual report, I also asked if any adjustments of the financial statements were made. This was done by first explicitly referring to the income statement and balance sheet showed during the interview (these pages were turned to in the annual report, one at a time). If necessary, follow-up questions were posed in order to understand the adjustments. The interviewee was subsequently asked whether this way of adjusting (or non-adjusting) was typical, and if considered necessary, the answers to this were followed up further. After questions concerning the financial reports, I asked about other information sources that were important for the company analysis. Verbal information from the company and information from external advisors was specifically followed up. b) Questions about how the interviewees dealt with uncertainty in connection with investment decisions. The analysts were asked to describe how they dealt with uncertainty when they analysed a particular company (one of the companies they analysed). Portfolio managers were asked: "What risk measures are important in your examination of [company X] as an investment object?" Their answers were followed up. The question related to one of the companies dealt with earlier during the interview. Interviewees who were responsible for carrying out equity transactions were asked questions about this phase for specific transactions: ^{IV} Was there some specified price limit? Was this price limit changed during the course of the transaction? Did they do something to reduce the uncertainty related to carrying out the transactions? c) Questions about what personal incentives the interviewees had in their work.

^I I knew from the pilot study that the question regarding the chronological list of news was quite time-consuming and therefore I did not use this technique for every studied investment action. When it was obvious that the interviewee was not involved in issues at this level, I did not use the technique at all.

^{II} The report that was selected had to be recent, and concern a company whose reports the interviewee was likely to have read. Typically, this was a company in which the institutional investor had made a large investment.

^{III} Again, the annual report should be one that the interviewee was likely to have read. Typically, this came from a company in which the institutional investor had made a large investment. I normally took three different annual reports to the interviews, to increase the probability that the interviewee had read or scanned at least one of them.

^{IV} This particular type of question was investment-decision-specific.

should cover, the follow-up questions were not pre-specified. The non-investment-decision-specific questions were somewhat more structured, and they were asked both before and after the investment-specific questions acting as a balance between the more and less structured parts of the interview.

The interview guide was followed throughout the study, but its application varied in two respects. Firstly, there was a difference between the pilot study and the main study. For type 3 questions (table 3.5), the pilot study primarily focused only on three investment decisions. In the main study, more investment decisions were asked about during each interview so that more aspects of the decision-making process could be captured. This increased “productivity” was achieved through more effective interviewing with respect to the investment actions,¹⁸ less demand for follow-up questions in companies with no internal analysts,¹⁹ less overlapping,²⁰ and less interview time spent on introductory questions and non-investment-decision-specific questions.

Secondly, there were differences between different groups of interviewees (portfolio managers, senior investment managers, internal analysts and others). Overall, the most in-depth follow-ups of investment-decision-specific questions could be done with analysts, and details regarding financial statement adjustments almost only came up in interviews with analysts. Therefore, fewer investment decisions could be covered in analyst interviews than in portfolio manager interviews. At the senior investment manager level, the degree of involvement in separate equities and industries varied, but these interviewees were always involved in the allocation decisions concerning assets and geographical areas. Therefore, these interviews focused more on the latter, trying to put the separate equity transactions into the overall portfolio perspective (type 3 question). With regard to other interviewees (two portfolio manager assistants, two risk managers and one chief economist),

¹⁸ The interviews in the pilot study moved forward too slowly because the follow-up questions had been too far-reaching.

¹⁹ The case companies that had no internal analysts had less detailed company/stock views, and therefore there was less to follow up in these interviews.

²⁰ Individual interviewees were to a lesser extent asked about the same investment actions.

the portfolio manager assistants were interviewed in the same way as portfolio managers, while the other three were interviewed in the same way as senior investment managers.

The interview situation

On the basis of Östman (1977, pp 52–54), I took a number of measures to make the interviews as rich and open-hearted as possible. The most important measure was to base the interviews on concrete investment decisions that had been taken. Records of transactions and portfolio changes were taken to each interview, and this made the interviews more detailed and concrete. Furthermore, the transactions as such could not be questioned, and that made it difficult for the interviewees to hide behind abstract clichés. A second measure was to try to establish a relaxed and conversation-like interview atmosphere right from the start. This was done by emphasising the confidentiality of the interviews and by beginning the interview with simple, informational, non-sensitive questions that would make the interviewee feel at ease. According to McCracken (1988, p 38): “...the opening few minutes of the interview...is an important time to reassure the respondent because it is in these opening stages that he or she sets his or her defences”.²¹ A third measure was to maintain a conversation-like form during the interview in order to encourage the interviewees to provide rich and coherent descriptions of the investment decisions. This meant that the formulation of the follow-up questions differed considerably across interviews, and depended on the interviewee’s first description of the causes of action. Mellbourn (1979) argues that interviewees that could be characterised as an “elite” could be expected to want to discuss on their own terms, and to put the questions and their own answers in a perspective where they themselves constitute the centre. Therefore, interviews with such individuals should be given a conversation-like form. A fourth measure was to gain as much detailed knowledge as possible about the institutional investor’s past and the quoted companies that the investment decisions concerned (see section 3.3.1). This knowledge was used in different ways during the interviews to encourage rich and open-hearted answers: (a) such knowledge was necessary in order to be able to ask follow-up questions regarding the details of the investment decisions; (b) revealing such knowledge to the interviewees

²¹ Kvale (1997, p 120) and Liljeqvist (1977, pp 45–47) provide similar comments.

seemed to make them more interested in talking about the background of the transactions; (c) from the meeting with the contact person, the internal transaction lists, and my gradually growing general knowledge regarding Swedish institutional investors, I could show the interviewee that I was already well informed about certain sensitive and confidential data, and this appeared to make the interviewees less anxious to provide me with more data of this kind. It also indicated to the interviewee that I could judge the validity of their descriptions. Ödman (1979) advocates that being well informed is very important when interviewing “elite” individuals.

Most emphasis during the interviews was put on type 3 questions (table 3.5). An important purpose of type 4 questions (and the information list confrontation in question 3) was to change the interviewees’ perspectives from specific investment decisions to particular topics (financial reports, dealing with uncertainty, personal incentives). Silverman (1989) suggests that perspective changes could facilitate the interviewees’ associations. Thorén (1995) argues that perspective changes in interviews facilitates the understanding of the interplay between events that are spread out over time (pp 37–38):

“To study an interplay between events that are spread out over time entails certain difficulties. An interview situation where room is given for perspective changes might improve the possibilities of discerning traces of such an interplay.”*

In the present study, the investment decisions could be seen as the outcomes of interplay between events that were spread out over time. The institutional investors’ equity holdings, and their views of the quoted companies, had often developed gradually over long periods of time. The perspective change aimed to stimulate the interviewees to describe aspects of the investment decision-making that did not emerge when they explained the reasons for specific investment actions.

Two of the problems associated with data collection through interviews are that individuals are not always aware of what has governed their behaviour, and when they are aware, they might not be able to verbalise their knowledge. Different aspects of these problems are discussed in Glaser and Strauss (1967), Bougon *et al* (1977), Glaser (1978, 1992), Ödman (1979)

and Silverman (1989). Discussing these problems, Thorén (1995) argues that the research interview should be characterised by the following:

1. Stimulation of the interviewees' associations.
2. Start out each interview identically.
3. Focus on events that have actually happened.
4. Put more weight on observable circumstances.
5. Let the interviewee further develop events that appear important to him/her.
6. Avoid forcing the interviewee into certain theoretical concepts and structures.
7. Avoid concepts with ambiguous meaning.

The first six of these points were emphasised during the design and conduct of the interviews. With respect to point 7, Thorén (*ibid*, p 42) refers to “economic responsibility” and “decision” as examples of concepts with ambiguous meaning. I have not been able to avoid the use of concepts where meanings might be ambiguous (e.g., concepts such as decision, information, expectations, and valuation).

Choice of investment actions covered in the interviews

Type 3 questions (see table 3.5) concerned investment actions in the case companies' Swedish equity portfolios during the primary and secondary observation periods (see figure 3.1). In the pilot study, I focused more exclusively on the transaction lists. In the main study, however, I decided to include the history of the equity holdings to a larger extent, although the main focus was still on the primary observation period. I understood during the pilot study that this change would keep me gain a better understanding of how the institutional investors reasoned when making their investment decisions.²² In total, I collected descriptions of 579 investment decisions (see section 3.4.1 and tables 3.12–3.13).

²² During the pilot study, the interviewees often began by referring to how the shareholding, and their view of the company, had developed up until the time of the interview.

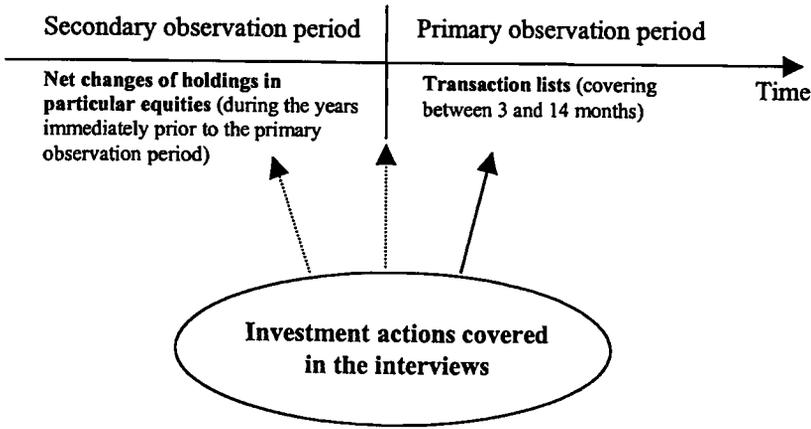


Figure 3.1 Investment actions covered in the interviews

When preparing for an interview, I had to choose a number of transactions and shareholding changes to be covered. During the main study, my aim was to cover a large number of holdings and transactions at each case company.²³ If the interviewees were analysts, I began by showing the shareholding developments and transactions for the companies/equities in one of “their” industries, and then we went through the companies/equities in this industry. I then moved on to the next industry, and so forth. In this way, I normally had time to cover most of “their” companies/equities. In terms of depth, I gave priority to the 16 quoted companies on which I had collected extra information before the interviews (see section 3.3.1). If the interviewee was a portfolio manager, portfolio manager assistant or a senior investment manager, I also used portfolio developments and transactions in different industries as a starting point, but in these interviews I gave priority to the companies that were not covered during the interviews with the analysts. More companies and transactions could be covered during interviews with portfolio managers, portfolio manager assistants and senior investment

²³ In the pilot study, three investment decisions were covered in more depth, and considerable overlapping occurred across interviewees (see Hellman, 1996).

managers, since the company-specific aspects could not be followed up to the same extent as with the analysts.

Table 3.6 shows the case company distribution across the quoted companies covered, or not covered, during the main study interviews (primary observation period).²⁴ The pilot study case company is not included in this table. Furthermore, for Hotel, only the life-insurance portfolio is included.²⁵

Table 3.6 Case company distributions of quoted companies covered or not covered in the main study narratives (Number of companies)

CC = Case company	CC1	CC2	CC3	CC4	CC5	CC6	CC7
Number of companies on the transaction lists	38	35	54	56	40	40	16
Number of companies covered in the narratives	16	16	35	46	33	34	13
Number of companies not covered in the narratives	22	19	19	10	7	6	3

Table 3.6 shows that quite a large number of companies were not covered in the first three case companies (CC1–CC3). In CC1, I was unable to interview the analyst responsible for property and construction companies, and this is why 11 companies in this sector were not covered. CC2 made many small short-term transactions in different companies. I covered some of these during the interview, and also received some general descriptions of how these short-term trading activities worked. I then understood that little was to be gained from asking more questions about these short-term transactions. In CC3, one interviewee was involved in all the transactions, which meant that some companies could not be covered. A further analysis showed that the spread of the companies covered was largely in line with the indus-

²⁴ For anonymity reasons, the case companies do not appear in the same order as in table 3.1.

²⁵ The unit trust portfolio is not included since it was separately managed by one single interviewee.

try weights on the Stockholm Stock Exchange. However, companies on the most traded list were generally better covered than companies on the other Stockholm Stock Exchange lists. This could be linked to the priority I gave to 16 highly traded companies, as described in section 3.3.1.

Interview statistics

Tables 3.7 and 3.8 show certain details concerning the interviews.²⁶ In total, 42 interviews were conducted. Six of the interviewees were women. The interviews varied in length between 45 and 155 minutes. The mean interview time was 89 minutes. In one of the case companies (case company 1 in table 3.7), the interviews were short (45 minutes); this was one of the smaller companies without analysts. Both the interviewees in this company could be described as very action-oriented. They explained their reasons for investment decisions quickly and in a very straightforward way. This also applied to follow-up questions, and the other types of interview questions.

Table 3.7 Interview statistics: different case companies

Case company	No. of interviewees	Length of interview (minutes, mean)
1	2	45
2	7	86
3	9	88
4	5	89
5	5	91
6	5	91
7	6	98
8	3	107
Total	42	89

²⁶ For anonymity reasons, the case companies do not appear in the same order as in table 3.1.

Table 3.8 Interview statistics: different interviewee categories

Interviewee category	Number of interviewees	Length of interview (minutes, mean)	No. of years of experience (mean)
Analysts	17	97	9
Portfolio managers	14	89	17
Senior investment managers	6	69	28
Others	5	85	11
Sum	42	89	15

Table 3.8 shows that the mean interview was longer for analysts and portfolio managers than for senior investment managers and others (two portfolio manager assistants, two risk managers and one chief economist). The reason for this is that the senior investment managers, and some of the “other” interviewees, were less involved in the separate buy and sell decisions, and therefore fewer details required follow-up. Table 3.8 also shows that the analysts generally had fewer years of experience than portfolio managers and senior investment managers.

All interviews were tape-recorded and transcribed. Given the very confidential nature of the empirical data, I was obliged to transcribe the interviews myself. Glaser (1992, pp 19–20) puts forth the idea that the number of transcripts could gradually be lowered as the latest collected data reveals less new information. However, I wanted to ensure that all of the data could be coded and analysed in a systematic way, in order to have full control over the analysis process. The pilot case study had shown me that a systematic approach was needed to avoid “getting lost” in the empirical data. Another reason for producing complete transcripts of the interviews was my limited prior experience as a case study researcher. A more experienced researcher could probably have used the interview data effectively without making literal transcripts (Yin, 1989, p 105).

3.4 Data analysis

Qualitative analysis is about interpreting empirical observations. A basic requirement of such analysis work is that the researcher is systematic and open-minded during the analysis process. In order to achieve this, I applied a data analysis method largely inspired by Glaser and Strauss (1967) and Glaser (1978, 1992). I relate to their terminology in the description below of how the coding was done, and how the conceptual relationships between categories emerged (see section 3.4.2 and 3.4.3). I also constructed a database where all observations could be stored together, in order to ensure proper order and control of the data during the analysis process. The qualitative analysis work was also characterised by perspective changes, as suggested by Ödman (1979). One type of perspective change involved interpretations at different levels of abstraction, that is, changes between concrete observations, and abstract concepts and classifications. Here, it was important to be able to link the more general induced structures to the specific observations (see also chapter 4). Another type of perspective change concerned the time dimension, and here I tried to be open to the forward-oriented reasons for investment actions, the conditions that applied in the present, and also to how these conditions were linked to the past.²⁷ In a third type of perspective change I compared how the interviewees described their reasons for action with the interpretations I could make just on the basis of other sources, in particular facts regarding transactions and portfolio changes.

3.4.1 Database, definitions and basic statistics

After the main study data had all been collected and transcribed, the transcripts were fed into a database.²⁸ The coding processes are described in sections 3.4.2 and 3.4.3. Other input in the database included transactions data collected from the institutional investors, and various facts and field notes regarding the institutional investors, the portfolios, the investment actions, and the interviewees. The different parts of the database are described in table 3.9. Certain specifications of the input needed to be made in

²⁷ With regard to changing the time perspective, Ödman (*ibid*) refers to Sartre, and argues that human beings choose actions in order to forestall their future, while at the same time, these actions are contingent on the conditions set out by the past and the present.

²⁸ Microsoft Access® was used to build this database.

Table 3.9 Composition of the database

Part of the database	Description
1. Fully observed transactions	A part where all fully observed transactions were registered and classified on the basis of transaction amount, portfolio, company, stock, case company, transaction price and industry.
2. Narratives	A part where all narratives referring to investment decisions were included. Each of these was coded into maximally 10 concepts referring to the underlying reasons for the investment decision.
3. Non-investment-decision-specific interview questions	A part consisting of quotations linked to the non-investment-decision-specific interview questions. These were coded into maximally five categories depending on what topics they referred to.
4. Basic facts	A part that included basic facts regarding the institutional investors, the portfolios and the interviewees.
5. Coding categories	A part that included lists of the coding categories.

Table 3.10 Specifications of input data used in connection with the construction of the database

Specification of input data	Description	Further information
Fully observed transaction	When the following details were known about a transaction: date of transaction, the number of shares, and the amount.	In total, 3,081 transactions in Swedish equities were fully observed. See table 3.11.
Partially observed transaction	When the following was known about a transaction: the net change in the shareholding of a company (number of shares and amount) between two points in time.	
Set of transactions	A series of transactions of the same type (buy or sell) in the shares of one particular quoted company.	
Transaction-linked investment decision	An investment decision linked to a transaction or a set of transactions.	
Non-transaction-linked investment decision	An investment decision that did not result in a transaction.	For example, a decision to continue to hold a stock or a decision not to buy a stock.
Narrative	An interviewee's verbal description of an investment decision.	
Full number of narratives	All collected narratives, some of which describe the same investment decision.	In some cases, different interviewees provided descriptions of the same investment decisions. The total number of narratives was 687 (see table 3.12).
Investment decisions with narrative link	Investment decision with one or more linked narratives.	Each investment decision is only counted once regardless of how many narratives are linked to the decision. The number of investment decisions linked with narratives was 579 (see table 3.12).

connection with the construction of the database, and this is described in table 3.10. The database was used during the selective and theoretical coding (section 3.4.3) and during the writing of chapters 4–9.

Some basic statistics regarding how the observed Swedish equity transactions were distributed across the 14 studied portfolios are given in table 3.11 (see also table 3.3).²⁹ The table shows that the daily transaction amounts exceeded 0.50% of the portfolio size in five of the portfolios (5, 6, 8, 11, 12). In some of the other portfolios, the daily transaction activity was rather low (particularly in portfolios 9, 10 and 14). Fluctuations in external cash flows was one reason for the higher transaction activity (see table 3.3). Arbitrage activities increased the daily transaction amount materially for portfolio 5 (see also section 7.3.3). The particularly high transaction activity in portfolio 11 was linked to the short-term perspective that was applied for this portfolio.

Table 3.11: Number and size of the observed transactions across observed case company portfolios

Portfolio	Number of transactions	Transaction amount in % of the portfolio (per day)	Portfolio size
1	514	0.16%	Large
2	397	0.23%	Large
3	389	0.28%	Large
4	274	0.36%	Large
5	525	0.82%	Medium
6	256	0.59%	Medium
7	203	0.35%	Medium
8	179	0.52%	Medium
9	33	0.10%	Medium
10	13	0.07%	Medium
11	127	2.32%	Small
12	107	0.61%	Small
13	46	0.18%	Small
14	18	0.15%	Small
	3,081		

²⁹ For anonymity reasons, the portfolios do not appear in the same order as in table 3.3.

Basic statistics regarding the narratives

When the initial classification work had been completed, there were 687 narratives referring to investment decisions. Certain investment decisions had more than one narrative linked to them and the number of investment decisions was reduced to 602 when each investment decision was only counted once. Thereafter, 23 investment decisions were excluded because their narratives were considered to be too loosely linked to the investment decisions. The number of investment decisions is much lower than the number of transactions (3,081) mainly because each investment decision almost always referred to a set of transactions. Another reason is that over 200 transactions were arbitrage transactions (see section 7.3.3). Table 3.12 shows the number of narratives, and the number of investment decisions with narrative links, across different case companies.³⁰

Table 3.12 Narratives and investment decisions with narrative links distributed across the case companies

Case company	Full number of narratives	Number of investment decisions with narrative link	Number of investment decisions with narrative link (23 loosely linked narratives excluded)
1	114	108	105
2	119	107	101
3	111	102	99
4	114	97	92
5	96	74	71
6	76	61	59
7	34	31	30
8	23	22	22
Total	687	602	579

Table 3.12 shows that the number of narratives, and investment decisions with narrative links, were spread out across the case companies, but that there were two deviations (case companies 7 and 8). Case company number 8 is the pilot case company, and the low number of investment decisions

³⁰ For anonymity reasons, the case companies do not appear in the same order as in table 3.1.

with narrative links is due to the decision to focus on fewer and larger decisions, with more overlapping across the interviewees (see section 3.3.2). In case company 7, the low number of investment decisions with narrative links is due to a low number of interviewees and relatively short interviews.

A more detailed classification of the investment decisions with narrative links is shown in table 3.13. The case company order is the same as in table 3.12. Table 3.13 shows that of the 579 narratives, 256 (44%) refer to investment decisions during the primary observation period; 67 (12%) refer to investment decisions that covered parts of both the primary and the secondary observation periods; 175 (30%) refer to investment decisions during the secondary observation period; 81 narratives (14%) refer to non-transactions (hold decisions or non-buy decisions). The fully observed transactions were given priority during the interviews.³¹

Table 3.13 Detailed classification of the investment decisions with narrative links

Case company	Transaction-linked investment decisions with narrative link			Non-transaction-linked investment decisions with narrative link	Total
	Narratives based on fully observed transactions	Narratives based on both fully and partially observed transactions	Narratives based on partially obs. trans.		
1	65	8	23	9	105
2	31	13	39	18	101
3	73	3	8	15	99
4	25	9	42	16	92
5	29	14	21	7	71
6	12	8	30	9	59
7	13	5	8	4	30
8	8	7	4	3	22
Total	256	67	175	81	579

³¹ The reasons for including investment decisions made during the secondary observation period were discussed in section 3.3.2.

The narratives regarding non-transaction-linked investment decisions originated from interview questions regarding unchanged holdings in particular equities and from non-transaction-linked investment decisions that were mentioned by the interviewees.³² A further analysis showed that the 579 investment decisions in table 3.13 were spread across different industries largely in line with the industry weights on the Stockholm Stock Exchange. It should also be noted that 32 of the 579 investment decisions concerned foreign equities. With one exception, the interviewees themselves mentioned these investment decisions.³³

3.4.2 Open coding: phases 1, 2 and 3

According to Glaser (1992, p 39), open coding is the initial step of the empirical data analysis. Open coding should start without concepts, and then as the incidents in the empirical material are compared, the concepts will emerge. As the concepts emerge, new incidents should be compared with the concepts. Glaser refers to this as the “constant comparative method”. The incidents in the present study were (i) the narratives described in section 3.4.1, and (ii) the interview answers to the non-investment-decision-specific interview questions as well as a number of interview answers that were “left over” from the investment-decision-specific questions.³⁴

The first phase of the open coding concerned the investment-decision-specific data, and I began by simply listing all the categories linked to investment-decision motives that I could think of on the basis of my experiences from (a) conducting and transcribing all the interviews, (b) matching narratives with investment decisions when building up the database, and (c) analysing the pilot study. This resulted in 16 main conceptual categories and

³² The interviewees occasionally mentioned other investment decisions themselves, since investment decisions were often linked to each other.

³³ The exception concerns one of the case companies where I also had access to transactions involving foreign equities. In these data, I noticed a tendency towards many short-term investments in foreign stocks that almost only realised gains. I became curious about this, and decided to ask about some of these transactions.

³⁴ In connection with the interview questions concerning specific investment decisions, the interviewees sometimes wanted to describe some more general aspect of how they made equity investment decisions. I considered this to be valuable data with respect to empirical objective E2, and therefore they were coded as non-investment-decision-specific data.

Table 3.14 Identified categories in connection with the open coding of narratives

Main category, 1 st phase of open coding	Main category, 2 nd phase of open coding	Description of main category	Number of subcategories, 1 st phase	Number of subcategories, 2 nd phase
1. Investment alternatives		Investment decisions linked to better or worse investment alternatives at different levels: other assets, other geographical areas, other industries, and other equities.	4	7
2. Public information from quoted companies		Investment decisions linked to public written or verbal information from the quoted companies.	4	4
3. Non-public information from quoted companies		Investment decisions linked to non-public verbal information from the quoted companies.	2	2
4. Other information sources		Investment decisions linked to financial information from sources other than the concerned quoted company: external advisors, other quoted companies, industry organisations, mass media etc.	7	7
5. Expectations		Investment decisions linked to expectations regarding the quoted company, competitors, the industry, macro variables and other investors.	5	5
6. Equity valuation		Investment decisions referring to particular equity valuation methods.	3	4
7. Own cash flows		Investment decisions linked to the investors' own cash flows.	3	3
8. Arbitrage		Investment decisions linked to arbitrage trading.	3	4
9. Portfolio strategy		Investment decisions linked to portfolio strategy, for example, regarding how close the portfolio should follow the chosen benchmark index.	3	4
10. Laws and internal rules		Investment decisions linked to the compliance with laws and internal rules.	1	3
11. After-effects		Investment decisions that were after-effects of previously taken investment decisions.	1	1
12. Own reports		Investment decisions linked to the investors' own financial reports.	1	2
13. Taxes		Investment decisions linked to taxes.	1	1
14. Stock liquidity		Investment decisions linked to the liquidity of different stocks.	1	1
15. "Historical" reasons		Investment decisions linked to what the institutional investors had done in the past, for example, the historical acquisition prices of stocks.	2	4
16. Sentiments		Investment decisions linked to "gut feelings" and other "senses" for what was right.	2	3
	17. Individuals	Investment decisions linked to the behaviour of particular individuals. For example, personal contacts or internal conflicts that were decisive.		4
	18. Ownership situation	Investment decisions linked to the ownership situation in the quoted company.		1
	19. Size of transaction	Investment decisions linked to the size of the transaction.		2
			43	62

43 subcategories (see table 3.14). The subcategories were concepts that described the main categories in more detail. This corresponds with what Glaser and Strauss (1967) and Glaser (1978) refer to as “properties”. For example, the “Public information from quoted companies” category included subcategories like “Financial reports information” and “Information presented at public meetings for analysts, shareholders’ meetings etc”.

In the second phase, I started coding the narratives one by one. I followed the constant comparative method in the sense that I first read the narrative, and then asked myself: “What category (and subcategory) does this narrative belong to?” and “Have I come across this type of narrative before?” My aim during this process was to keep an open mind towards new categories. In total, three more main categories, and 19 more subcategories, were identified during phase 2 of the open coding process (see table 3.14).³⁵ About 80% of these additional categories and subcategories were identified during the coding of the first two interviews. As I coded the narratives, I also gave each category and subcategory a numerical code, which was fed into the database. Each narrative was classified into at least one main category and one subcategory. When all the narratives had been classified into the above 19 main categories and 62 subcategories, the third phase was to identify the narratives that had been given by different people in the same case company and that referred to the same investment decision. This resulted in the sample of 579 observed investment decisions with one or more narratives linked to them. On average, 3.2 subcategory codes were attributed to each investment decision with a narrative link.

During the second phase, I also coded the non-investment-decision-specific interview data. These data consisted of the specific answers to the interview questions of types 2 and 4 (see table 3.5), and the interview data that were “left over” from the investment-decision-specific interview questions. With regard to the non-investment-decision-specific interview data, I did not list any categories in advance, but identified these during the open coding of the interview transcripts. Again, I used the constant comparative method of

³⁵ I made notes while transcribing the interviews, and while matching the narratives with investment decisions. After all the narratives had been coded, I checked that everything I had marked as interesting in the notes was also included in the categories and subcategories.

coding. I simply started with interview 1, quotation 1, and then asked myself: “What concepts does this interview answer indicate?” and “Have I come across this before?” In total, this led to the identification of 23 main categories with 123 subcategories (see table 3.15). About 80% of the categories were identified from quotations in the first two interviews. In total, the non-investment-decision-specific interview data included 1,107 quotations, and each of these were coded into one of the main categories in table 3.15, and into, on average, 2.3 subcategories.

Table 3.15 Categories identified in connection with the coding of non-investment-decision-specific interview data

Main category, non-investment-decision-specific interview data	No. of sub-categories
1. Initiation of decision-making processes	2
2. Dealing with investment alternatives	4
3. Reception of financial reports	3
4. Attitudes towards accounting data	1
5. Adjustments of financial statements and other data	5
6. Dealing with public financial information from the quoted companies	5
7. Dealing with non-public financial information from the quoted companies	2
8. Dealing with information from other information sources	8
9. Forming of expectations and forecasting	9
10. Equity valuation	11
11. Dealing with uncertainty	15
12. Return on investment requirements	3
13. Requirements from principals and institutional investors' goals	5
14. Exit and voice behaviour	1
15. The institutional investors' own cash flows	3
16. Equity investment analysis	8
17. The internal organisation of investment decision-making	9
18. The decision-making process	12
19. Portfolio strategy	6
20. Incentive systems and other individual factors	6
21. Dealing with laws and rules	2
22. The institutional investors' own financial reports	1
23. Taxation	1
	123

3.4.3 Selective and theoretical coding: phases 4, 5 and 6

In phases 1–3 above, I assigned conceptual codes (categories and subcategories) to the empirical observations. This corresponds to Glaser’s (1978, p 55) term substantive codes, i.e., codes that conceptualise the empirical substance. According to Glaser, substantive coding should be followed by selective coding, i.e., a search for a core variable in the empirical data. Finally, during a phase of theoretical coding, the core variable should be used to conceptualise how the substantive codes may relate to each other. The aim of theoretical coding, in the words of Glaser (*ibid*, p 72), is to “weave the fractured story back together again”.

In the fourth phase, my aim was to establish the relationships between the narrative categories in table 3.14, by looking for a core variable that could link the categories to each other. I scrutinised the 579 investment decisions referred to above, and the identified categories and subcategories, and discovered that the investment decisions always seemed to involve an interaction between “external factors” (factors based on information from sources outside the institutional investor), and “internal investor conditions” (investor-specific conditions such as the investor’s own cash flows, legal status etc). This external/internal distinction became the core variable.

Table 3.16 Internal and external causes of action

Reason for investment decision	Description	Number of investment decisions with narrative link	%
External	Investment decisions where the interviewees only referred to information relating to external investment factors.	277	48%
Mixed	Investment decisions where the interviewees referred to information relating to both external factors and internal conditions.	222	38%
Internal	Investment decisions where the interviewees only referred to internal investor conditions.	70	12%
Unclassified	Investment decisions linked to arbitrage.	10	2%
Total		579	100%

Table 3.17 External factors and internal investor conditions

External factors	Description of external factors	Internal investor conditions	Description of internal investor conditions
Expectations regarding macro variables	Investment decision linked to the development of macro variables such as interest rates, currency rates and business cycles.	Operational activities	Investment decision linked to the development of the institution's own operating activities, for examples, that unit trust holders chose to invest or withdraw money from the fund, the insurance business generated cash flows or had to pay out large amounts, investment companies and foundations that received, or had to pay out, money in connection with their business activities.
Expectations regarding industry and competitors	Investment decision linked to the development in a particular industry or to the competitors of the quoted company.	Portfolio strategy	Investment decision linked to a particular portfolio strategy, for example, a certain asset mix, geographical mix or industry mix.
Expectations regarding the company	Investment decision linked to company-specific aspects.	Legislation and internal rules	Investment decision linked to legislation or internal rules, for example, insurance legislation, unit trust legislation, internal rules regarding industries or stocks to be invested in, stock liquidity, and the maximum size of the shareholding in a specific company.
Equity valuation	Investment decision linked to the appraisal of the company's shares.	Historical acquisition costs	Investment decision linked to the price paid when the shares were bought.
Non-fundamental stock market events	Investment decision linked to, for example, the behaviour of other investors, sentiments on the stock market, the liquidity of the share, the supply of stocks (offers of big blocks of shares).	Ownership considerations	Investment decision linked to ownership considerations, for example, in connection with the participation in new issues of shares, attempts to raise bid prices in connection with bid offers, the staffs' ownership in quoted companies.

In the fifth phase, each of the 62 subcategories from the earlier phases was further classified as either an “external factor” or an “internal investor condition”. Accordingly, the investment decisions could be explained by (a) the external factors, (b) the internal investor conditions, or (c) a mix of external factors and internal investor conditions (see table 3.16). Table 3.16 could be interpreted as follows: the interviewees referred to external factors in connection with 86% of the 579 investment decisions (“external” plus “mixed” in table 3.16), and to internal investor conditions in connection with 50% of the 579 investment decisions (“internal” plus “mixed” in table 3.16).

When the investment decision with narrative links had been coded according to the external/internal dimension, I looked at the 62 sub-categories that had been classified as “internal” or “external”. I then found that a further clustering could be made of five external factors and five internal investor conditions (see tables 3.17 and 3.18). Table 3.18 shows that expectations regarding the quoted companies were referred to as one of the reasons in connection with 65% of the investment decisions, while, for example, ownership considerations were only referred to as one of the reasons in connection with 5% of the investment decisions.

Table 3.18 Distribution of investment decisions with linked narratives across external factors and internal investor conditions

	% of investment decisions with narratives linked (n=569)¹
External factors	
Expectations regarding macro variables	23%
Expectations regarding industry and competitors	30%
Expectations regarding the company	65%
Equity valuation	36%
Non-fundamental stock market events	21%
Internal investor conditions	
Operational activities	17%
Portfolio strategy	30%
Legislation and internal rules	9%
Historical acquisition costs	9%
Ownership considerations	5%

¹ The ten arbitrage investment decisions are not included in this table.

Having worked with the above structure for some time, it became clear to me that a better conceptual structure was needed. The distinction between “internal” and “external” appeared to be too general. Furthermore, although the external/internal dimension captured an important aspect, it did not capture the interaction between factors and conditions during the investment decision-making processes. I tried to deal with these deficiencies during the sixth phase.

One problem that I faced at this stage concerned how the internal investor conditions related to “information”; could the internal investor conditions be seen as some kind of “internal information” that affected the investment decisions? A book by Ijiri (1967) helped me solve this problem. Ijiri makes a distinction between principals and surrogates: the “principal” denotes the phenomenon as such, while the “surrogate” represents the phenomenon. A straightforward example of principal and surrogate is the earth’s surface (principal), for which a map is a surrogate. Ijiri uses the concepts in order to distinguish between the economic events of an entity (principal) and the accounting concepts and relations that represent the events (surrogates). When I applied this way of thinking, I came to the conclusion that the internal investor conditions were the phenomena as such; they did not represent something else, but were simply the circumstances that the institutional investor worked under. A distinction could then be made between, on the one hand, the conditions as such that the institutional investor worked under, and, on the other hand, information about the investment object and other parts of the institutional investor’s environment. This meant that conceptually, there could be no such thing as “internal information”; all information originated from outside the institutional investor organisation.

With these insights, the narratives linked to the investment decisions and all bases for classifications used in the previous phases, were revisited, and a new analysis was made. I searched for a set of factors, where each factor described a core aspect of the institutional investor’s investment decision-making, and could at the same time be linked to other factors. Phase 6 did not include any new coding of the narratives per se, but re-clustered the original categories and subcategories.

Six factors were identified. Each factor describes a core aspect of the institutional investor's investment decision-making (see table 3.19).

Table 3.19 Six investment factors describing core aspects of the institutional investors' investment decision-making

Investment factor	Description
1. Fundamental basis at the company/industry level	The institutional investors developed fundamental opinions at the company/industry level regarding their equity investments. These opinions play an important role in the investment decisions. This fundamental basis was built on expectations of particular companies and their industries, ³⁶ and own valuations of the equities.
2. Fundamental basis at the asset/geographical area level	Fundamental opinions about other asset types and other geographical areas also had an impact on investment decisions. This impact of fundamental opinions at the asset/geographical level was linked to the institutional investor's alternative structure, which could range from just Swedish equities, to equities in other countries, and to other types of assets in Sweden and abroad.
3. Stock market conditions	Stock market conditions refer to stock prices, trading volumes and other investors' investment actions. Share price fluctuations were observed to initiate investment decision-making processes. The liquidity (trading volumes) of different stocks was also important. Finally, the institutional investors took into account the actual and expected investment actions of other investors.
4. Certain contextual conditions	Certain contextual conditions concerned, for example, legal conditions, organisational conditions and portfolio strategy.
5 and 6. Internal financing and External financing	Buying or selling stocks always affected the investor's cash account. This means that the investor had to consider the financing (or what to do with the money, in the case of selling) in connection with each buy (and sell) decision. Such considerations were classified in two ways. Firstly, the institutional investor could sell other equities, or other assets, and thereby finance a buy decision internally (internal financing). Secondly, external financing could be obtained from owners, customers, lenders or other stakeholders. External deposits (withdrawals) in an institutional investor could lead to a pressure to buy (sell).

³⁶ In many of the narratives, the views of companies and industries were so connected that it was not perceived to be meaningful to make two separate categories.

The six factors belong to three different categories: the investment object (factors 1 and 2), the stock market (factor 3), and the investor (factors 4, 5 and 6). Interaction occurred between the factors, in the sense that during the investment decision-making process, company/industry fundamental opinions were weighed against asset/geographical fundamental opinions, stock market conditions and different contextual premises (factors 4–6). For example, external outflows of money (external financing) could cause forced selling situations, where the resulting actions could be in conflict with the company/industry fundamental opinion. Stock market and investor-related factors could restrict or reinforce action in accordance with the fundamental opinions.

After the identification of the six investment factors, I categorised the investment-decision-specific data in “cases” such as the “Astra investment decision case” described in chapter 4. I then wrote descriptions and analyses of the type described in sections 4.1–4.2, for about 80% of these cases. These texts also included analyses of the nature of expectations (see section 4.2.6). This became the basis for the results regarding expectations presented in section 5.1.1.

3.5 Presentation

Chapter 4 describes the methodological approach of some empirical examples of investment decisions. The results from the empirical study are presented in chapters 5–10. The two empirical objectives (E1 and E2) were viewed as complementary, but the investment-decision-specific data and non-investment-decision-specific data were handled separately during both the data collection and data analysis. However, regarding the presentation of the empirical results, it was found that the results relating to the two empirical objectives would be better presented together than separately. Still, the first three empirical chapters (5–7) primarily elaborate purpose E1, while chapters 8–9 primarily elaborate purpose E2.

With regard to the presentation of results, cross-case analyses underlie chapters 5–9. This corresponds with Yin’s (1989, pp 133–136) fourth way of presenting case study results, which he describes as follows (p 135):

“In such a report, each chapter or section would be devoted to a separate cross-case issue, and the information from the individual cases would be dispersed throughout each chapter or section.”

Finding an appropriate form for the presentation of empirical results based on qualitative data is problematic (see the discussion in Östman, 1973, pp 79–81). One aspect of this concerns how common certain observations are. Terms such as “often”, “most” and “a few”, need to be used for the presentation of results, and these may appear vague to the reader. I have tried to ensure that they have been used consistently. Given the qualitative nature of the data, it is not meaningful to quantify the results. Consequently, the findings are not based on frequencies, but on the fact that the occurrence has been observed to a certain, non-negligible, extent.

The presentation of empirical results includes many quotations from the interviews to illustrate the results described in the main text. However, the validity and the reliability of the empirical results should primarily be judged on the basis of the methodological descriptions in chapters 3 and 4.

The quotations were first carefully edited by the author in order to make the text anonymous, readable and understandable. Thereafter, all quotations were translated from Swedish into English by a professional translator.³⁷ Finally, the 39 interviewees to be quoted were given the opportunity to look at their quotations and were asked to give their signed permission to allow the quotations to be published anonymously. In a few cases, this led to re-statements of the quotations, but for all interviewees except one, the changes were small and did not affect the meaning of the quotations in any material way. The quotations from the interviewee who wanted to make more material re-statements were not included in the thesis. Furthermore, one interviewee requested that a number of quotations be excluded, and three interviewees did not allow their quotations to be published at all.

³⁷ The pilot study report (Hellman, 1996) included a number of quotations that I had translated myself. Some of these quotations are also included in this thesis.

4 The methodological approach in practice

The reader needs to be able to evaluate the validity of the findings of this study. Ideally, the specific empirical support for each finding should be reproduced in the thesis. However, the character of the empirical data is such that they cannot be reproduced in a short form. In order to understand the explanatory factors of separate investment decisions, a more lengthy description is needed. Instead of including many such lengthy descriptions in chapters 5–9, I have decided to provide an example of the investment-decision-specific data and how the analysis was conducted in practice. Hopefully, on the basis of these descriptions, the reader will be able to judge to what extent the applied methodological approach generates credible empirical results.

The inductive analysis of 579 investment decisions led to the development of a conceptual structure containing six investment factors belonging to three different categories: the investment object, the stock market and the investor (section 3.4). The first section in this chapter presents the empirical data regarding three of the institutional investors' investment decisions regarding the pharmaceutical company Astra (section 4.1). The empirical data described in section 4.1 cover 15 of the 579 investment decisions. The subsequent section shows how these empirical data were analysed in terms of the conceptual structure developed in section 3.4.

4.1 Descriptions of investment decisions in Astra shares

This section includes descriptions of three of the institutional investors' investments in Astra. The three institutional investors will be referred to as I-1, I-2 and I-3. During 1990–94, Astra was one of the largest companies on the Stockholm Stock Exchange, with an index weight varying between 10% and 20%. I-1 and I-2 had owned Astra shares for a number of years, while I-3 did not start investing in Astra shares until 1993. From 1992 until the first quarter of 1994, I-1 and I-2 net sold Astra shares, and decreased their portfolio weights. During the second quarter of 1994, they started buying Astra

shares again, increasing their portfolio weights compared to the index weight. This development continued during the third quarter. I-3 increased its holding of Astra shares during the first and third quarters of 1994.

4.1.1 Astra investment decisions during 1993

I-1

During 1993, I-1 sold Astra shares, and the primary motives for these sales were (a) they expected the market for pharmaceuticals to decline because of large health care reforms in several large countries,¹ and (b) they expected foreign investors to reallocate from pharmaceuticals to other sectors. I-1's pharmaceutical analyst explained their reasoning as follows:

“In many respects the international trend was against pharmaceutical companies. Many far-reaching and revolutionary health care reforms in important markets. A scenario where we in fact felt that Astra could do better than many other companies. It all began in the United States, and at the time Astra's business in the United States was rather small, but we saw these trends also in Sweden; we saw them in Europe. That's when we made the decision to lose some weight [since] we were worried that investors in general were going to move away somewhat from this type of equity and they would fare worse than the market. There was actually nothing Astra-specific. Astra's performance at this time was, after all, very strong, [but] we know this much: it affects this type of company. Astra fared fantastically well; I would venture to say among the three best in the world during this period, but the share still took a beating.”*²

Thus, although I-1 thought that Astra would be able to cope with the market decline better than other pharmaceutical companies, they did not think foreign investors would take this into account, and so I-1 expected Astra's share price to decline.

¹ Price competition increased in the USA during 1993 and 1994 due to changes in customers' buying behaviours. In Japan and Europe, public authorities attempted to lower prices and consumption via regulation. For example, German authorities implemented a health care reform in 1993 that included forced lowering of medicine prices, restrictions in doctors' prescriptions, and raised patient fees (source: Astra's annual reports 1993 and 1994).

² [...] -brackets in the quotations indicate that the author has added or replaced a word or phrase to make the text coherent, or for anonymity reasons.

I-2

I-2 made a major decision around late 1992/early 1993 to lower the portfolio weight of pharmaceutical stocks in its portfolios, and during 1993 pharmaceutical stocks were sold. I-2 feared that the expected health care reforms (in US, Western Europe, Japan) would cause price pressure and lower growth, and this was the main reason for selling. Here, I-2 put very much emphasis on the international signals and the expected behaviour of other investors. One of the interviewees expressed this as follows:

“We saw ahead of us pricing pressures here and that emanated to a large extent from the global trend. After all, we are working here from a Swedish base, but we also do a lot of work in the United States on how this sector is looked upon, especially pharmaceuticals, telecommunications and this type of industry. Our pharmaceutical analysts spent a lot of time in the United States trying to acquire knowledge of what was going on there, and also in Europe, so we had several examples of the fact that things were under way. Aside from one analyst who concentrates on pharmaceuticals, we [also] have managers responsible for different European markets and for the U.S. market, and many signals also came from these sources to the effect that there are leading U.S. firms who suddenly are beginning to assign much less weight to pharmaceuticals. It is absolutely clear that such things also affect us. We then made the assessment that there will be pricing pressures here and that diminishes growth and then these companies will be valued lower and then they should be valued lower across the board.”*

The I-2 interviewees also pointed at two other reasons for selling: (i) I-2 had a positive business-cycle scenario at this point in time (late 1992/early 1993), and they also believed that other investors would come to focus more on business-cycle-sensitive stocks than pharmaceuticals, and (ii) when I-2 sold Astra shares, they realised very large profits that had been built up during previous years, and this was also a reason for selling. However, I-2 did not sell out Astra completely, but “only” reduced the portfolio weight by about half. Their reasons for this were about the same as I-1’s, i.e., both I-1 and I-2 believed that Astra would not be affected as much as other pharmaceutical companies by the health care reforms, and that Astra’s volume growth would continue at a very high pace. I-2 also referred to Astra’s high index weight. One of the interviewees explained this as follows:

“We saved Astra, in part because we still felt that this company was too good to get out of. I am also of the opinion that you are taking a very big risk in Sweden;

if you say that the (index) weight was 12–13 percent at that time, then it would be rather drastic to be a zero. We then went down to a low of [X%], and then we turned around.”*

Thus, for I-2, a complete sell-out would have led to too high a risk compared to the index.

I-3

I-3 started buying Astra shares in mid-1993, but these investment decisions were not covered in the interviews.

4.1.2 Astra investment decisions during the first quarter of 1994

I-1

In January 1994, the portfolio manager and the pharmaceutical analyst met with Astra representatives at the top management level. One of the interviewees made the following comment regarding this meeting:

“I and [an analyst] met Astra on [Xth] January and ‘everything is very positive’ it says [in my documentation]. The vibes were positive [and] that is certain to have bolstered us in [our view] of how the company was doing.”*

Although I-1 had a positive view of Astra as a company at this point in time, they continued selling equities and lowering their portfolio weight during the first quarter. The reasons for this were (i) that I-1 believed that the share price was still too high given Astra’s P/E ratio compared with other pharmaceutical stocks and given the expected behaviour of foreign investors, and (ii) there was some uncertainty during January, February and March regarding admissions of medicines in important markets and regarding Astra’s main product (Losec³). With respect to point (i), one of the interviewees had the following to say:

“The meeting with Astra’s management did not lead to a situation where we began to accumulate, because here the price was up to 190 and I think that we perceived that as not being terribly attractive in that situation. [There was] an under-

³ Losec is the Swedish name of the product; Prilosec is the American name. Omeprazole is the name of the critical substance contained in the medicine.

lying poor sentiment for the pharmaceutical industry. In some way, when one makes an assessment of the share, one also has to take a stand on how the industry will be perceived and valued. In Astra's case we are affected by the international valuation of pharmaceutical stocks; there is standard out there with American companies in some way as the benchmark. We are talking here a lot about P/E ratios, [relative to other] research-intensive companies with a good product portfolio. You look at Merck and Pfizer. In Astra's case it is very clear that this is the way we do it. Overall, the market's valuation has exerted more and more control.”*

Just like Astra, the US pharmaceutical companies Merck and Pfizer both experienced significant share price drops during the first quarter of 1994. I-1's growing uncertainty regarding Losec during this period (point ii), was linked to the actions taken by the German regulatory authority on pharmaceutical issues (BGA). The analyst described this as follows:

“If I try to remember, we felt after the visit in January that this feels right. [We were] very positive overall, but there was a period of uncertainty. We had this whole thing with the BGA debacle and, OK, we felt comfortable with the assurances we got from management that Losec is a safe preparation, but, obviously, when you know that the uncertainty is still there, you also have to consider that in your assessment. It was an element of uncertainty [and] the price of the share fell sharply here due to BGA.”*

In short, the following had happened: on March 2 1994, Direkt's headlines read, “Intravenous Losec tests cease owing to death”. This did not seem to affect the share price during the following day (unchanged price of SEK 176). In the evening of March 3, Astra issued a press release headed: “Astra endorses the safety of Omeprazole”, and wrote as follows:

“Astra has received a letter from the German Regulatory Authority (BGA) stimulated by single case reports carried in the publication *arznei-telegramm*...the BGA has indicated that the prescribing information for omeprazole be revised in the light of these isolated reports, and that use of the intravenous injection be reviewed.”

During March 4, the share price fell about 9% during the first two hours of trading. Later in the afternoon, Astra held a telephone conference on the safety of Losec, and the share price recovered. At the end of the day, the

price fall was only about 3% compared to the day before. One of the I-1 interviewees gave the following description of this event:

“...‘intravenous Losec tests interrupted after deaths’, that I remember; there was real turmoil in the market in that situation and [our analyst] grabs the telephone and speaks with Staffan Ternby and asks, so to speak: ‘What is all this?’ and Staffan comes out time and again and hands out press releases and declares what the situation is. This affects the market very, very much. The market’s valuation is affected by this, but not for us. Facts, facts, facts, what is it all about, what is it all about, and we then got very reassuring answers from [Astra], so we in no way reacted on it.”*

In summary, during January, February and during most of March, I-1 continued selling Astra shares and reducing their portfolio weight. I-1 had a positive opinion of Astra as a company during this period, but the price was considered too high given Astra’s P/E-ratio compared with that of other pharmaceutical companies, and given the expected behaviour of other investors. At the beginning of March, the share price dropped, but at that time some uncertainty also prevailed regarding Astra’s largest product, Losec, and I-1 did not start buying at this point in time.

I-2

After the substantial sales during 1993, I-2 had about the portfolio weight it wanted in Astra at the beginning of 1994. However, I-2 was to invest in more business-cycle-sensitive stocks at this point in time, and they had decided to use Astra as a source of financing if Astra’s share price came up to the level of SEK 180–190 (a price level that I-2 considered made Astra’s share pricing “unattractive”). In line with this, Astra sales were made during January and February 1994. According to I-2’s portfolio manager, the negative Losec news at the beginning March had only “marginal effects”. In terms of transactions, this meant that I-2 neither bought nor sold any Astra shares during March 1994.

I-3

I-3’s portfolio strategy during 1994 was to gradually exchange business-cycle-sensitive stocks for more stable stocks, and Astra was regarded as fitting well into this strategy. In addition to portfolio strategy, I-3 believed that when other investors stopped focusing so much on business-cycle-

sensitive shares, Astra's share price would rise. I-3 also believed that Astra's company fundamentals were developing well at this time but that this was not reflected in the share price development. In line with this, I-3 increased its holding of Astra shares during the first quarter. One of the interviewees described what happened as follows:

"Then (during the first half of 1994) we didn't think that the price of the share was doing as well as the company deserved because they reported good earnings increases and [we believed] the valuation ought to be at roughly the same level as a number of other companies. Despite the fact that Losec was doing very well, and also all other products, the market price of the share didn't go up very much, because everybody was then buying more of forest shares and engineering shares and things like that. So then we thought [Astra] could be a good thing to have (laughter). I HAVE SOME NEWS HERE FROM ASTRA. COULD YOU SEE IF IT IS ANY OF THIS NEWS THAT HAS HAD AN EFFECT IN SOME WAY? Yes, there was a bit of a row in Germany in March over something (pointing at the news item in early March with the headline 'Intravenous Losec tests interrupted after deaths'), but at the same time they arrived at the conclusion that it could still be because they were heart patients and a lot of other reasons like that. But it was a rather small market (Germany) and we felt that they had tested this preparation for so long. WAS IT TOTALLY YOUR OWN ASSESSMENT THERE, OR...? No, there we speak quite a bit with those who are experts to an extent; and we also then received a lot of such information from the company. There are, after all, analysts at the various firms, Odlander at AROS and a guy by the name of Rasmusson at Bergs and a few others and we called them from time to time. BUT IT AFFECTS A LITTLE BIT? Well, yes, since we did not have our own research department, we must rely on others."⁴*

4.1.3 Turn-around from selling to buying during the second quarter of 1994

I-1

By the end of March 1994, I-1 stopped selling Astra shares, and began to buy instead. Initially, two factors appeared to be especially important for this turn-around: (i) a positive view of Astra as a company, which was strengthened during a period of negative publicity, and (ii) the decline in Astra's share price during the first quarter 1994 (see figure 4.1).

⁴ Capitals are used in the quotations to denote the things said by the interviewer (the author).

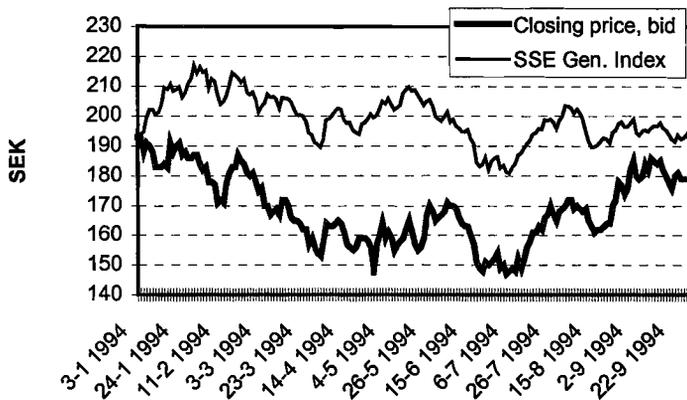


Figure 4.1 Astra's share price development January to September 1994.
 Source: Stockholm Stock Exchange.

Figure 4.1 shows that by the end of March, Astra's share price had fallen below SEK 160. This was the point when I-1 stopped selling and started buying. One of the interviewees described what happened as follows:

“Suddenly there is a turnaround and behind that decision was the thing that now the revaluation [has occurred], now we think it is complete. Now it looks really good for Astra. Around the 160-level we began to waver and say that we don't dare sell any more; perhaps one should even begin to buy gradually. Then we had contact with the company, we did research on it and then we said: now it's exactly the opposite. Now we don't dare lie with a portfolio share of perhaps [X] percent, which we were down to, when Astra has such a big weight in the index. That is a certain type of risk. Then we said that now we will make an about-face and then we began to buy back some shares.”*

This quote shows that the share price decrease was a trigger for action. However, although I-1 stopped selling and started buying, they only bought small amounts in the beginning. This had to do with the uncertainty regarding Losec and BGA. The analyst expressed this as follows:

“We bought a little during the first quarter, [but] didn’t feel sufficiently convinced and an important judgement in this case was the entire BGA situation. There were lower prices and there was uncertainty in the market.”*

I-2

I-2 stopped selling Astra shares at the end of February 1994, and began to buy again at the beginning of April. The share price then was about SEK 155, and at that level I-2 believed Astra to be buy-worthy. As in I-1, the share price decrease was an important trigger for action. One of the interviewees described the situation as follows:

”WHAT WAS IT THAT MADE YOU START BUYING AGAIN? Well, the price went down a lot and I think that everything has its price and therefore we wanted to buy again when the price was down to 150–160, to reduce our risk. Nothing has changed in the way we look at the company itself, except for the price. Astra, after all, has unique products and there were strong reasons to believe that Astra would post stronger growth going forward compared to other companies. And we felt that we wanted to reduce our risk against index. I mean, we did have a large [deviation from index]. At these price levels, the valuation was more attractive, and it was a risk if something were to happen, that there would be renewed focus on non-cyclical issues, or a bid for Astra, or something of that nature.”*

However, I-2 only bought very small amounts at the beginning of April. The larger buys did not begin until late in May.

4.1.4 Continued buys during the second and third quarters of 1994

I-1

During the second and third quarters, I-1 bought more Astra shares, and increased its portfolio weight materially. Late in March, I-1 had another meeting with top management representatives in Astra, and this was important for I-1’s decision to buy more. One of the interviewees described this meeting as follows:

“We had a meeting with them, let’s say that it could have been towards the end of March then. We were further strengthened in our belief after that visit and the second visit generated a bigger effect on our portfolios than the first visit. Overall,

companies are after all not able to give us so much more information than they can give to other players. You don't leave a meeting with a company and feel that, wow, now I have received so much information; instead one leaves with a feeling. [In this case] I suppose it was very much a feeling that they (Astra) are probably right, it's BGA that has it all wrong. It felt very solid and we felt that things were going very well for them. It is more this emotional thing, intuition, than they are able to be so exceptionally concrete in all issues. Their credibility, how they answer questions. I have been visiting them for a long period of time, so one goes back and sees 'what did they say then' and 'what have they achieved' and this also provides a feeling for how credible they are today. Visits and contacts, that is a very important thing for me as an analyst.”*

Another interviewee also described this second visit as important for the Astra buys:

“We became convinced that things are going really well. There was no other new information than...say this, it was a confirmation from Astra at that time to the effect that it was doing very, very well.”*

In addition to this company visit, another circumstance that might have affected the decision to make these larger buys was the changed behaviour of foreign investors. During the first two weeks of April 1994, Merck and Pfizer were at their lowest prices, but after that they began to rise. One of the interviewees mentioned this as possibly having affected the decision to buy more Astra shares:

“It is possible that we were also influenced by what was happening in the United States with the pharmaceutical stocks. There I am a little uncertain if we had seen that. You have seen higher valuations of pharmaceutical stocks in the United States in recent months; it is possible that it had begun then and that it happened to coincide.”*

Returning to the company visit, this was an important part of the quite extensive analysis work that I-1 undertook to build up company fundamental opinions. In the case of Astra at this point in time, there were three aspects of the company fundamental opinion that appeared to be important: long-term and short-term expectations, the valuation of the Astra share, and the reduced company-related uncertainty. These aspects are described below.

Long-term and short-term expectations

Astra had been in the portfolios for many years, and I-1 had a firm fundamental opinion of Astra. One of the interviewees described their view on Astra as follows:

“Astra is a core holding and normally we don’t play in the market here, but stand squarely behind what we believe in. Research and such things were there all the time because Astra is one of the companies that we know inside and out for a long period of time. You should know that with regard to Astra we have always had a very favourable image and a very well informed image.”*

The I-1 analysts produced written company analyses that were discussed in meetings with all the other analysts and portfolio managers. The factors that I-1 always considered were: company management, business idea, strategy, products, product markets, competition, financial position (capital structure, liquidity, cash flows), and “environmental factors” (business cycles, interest rates, foreign currencies, political factors). In regard to these factors, I-1 had both long-term and short-term expectations. An important aspect of the short-term expectations was the quantified forecasts of earnings per share. Detailed forecasts were normally made about three years ahead. For years 4 and 5, the trend was extrapolated and a growth assumption was made regarding the period beyond the horizon. The analyst said:

“There are many factors which have to be weighed together and from that springs a forecast of what we think of the company’s results. We are very forecast-oriented at [I-1], and we are very earnings-oriented, and this then lays the foundation for how we think the company should be valued.”*

In the short perspective, the sales growth for Losec was a key forecast variable. This is illustrated by the following quotation from one of the interviewees:

“WHICH ARE THE IMPORTANT FORECAST VARIABLES HERE WHEN YOU ARE DOING CALCULATIONS? Well, it’s growth in sales, that is the important variable. The sales increase for Losec, if it corresponds to expectations, or is even higher than expectations. And these are then somewhat more short-range

assessments. We say that 2–3 years, that doesn't seem to be a problem (for Astra); there things will go by themselves.”⁵

The long-term expectations primarily concerned Astra's strategy, growth, products and markets. This was described as follows by one of the interviewees:

“The deals we have done (in Astra during spring and summer) have been determined by the factors I have mentioned to you, not by a change in any way of our long-term assessment. The long-term assessment, which always constitutes the basis, does not change from quarter to quarter. It is highly focused on these things: growth, products, markets. [Astra] has a good product portfolio at present, they are growing very rapidly and we see that that is going to continue. The financial position has not been a primary concern here because that has followed from the fact that things have gone very well for them. Cash flow is secondary and comes as a consequence of this. Strategy is one of the things that often comes up in discussions with management, but which does not govern the [short-term] assessments. Instead we may sometimes say this, ‘what will Astra look like in 4–5 years, when the growth rate subsides’. One cannot grow by 50 percent per year; at some point in time Losec must become saturated. What do they have in the pipeline then, what is their strategy now to develop new things. So one can say [that] this comes in at another level of the discussion.”*

⁵ The analyst also gave a more detailed description of how the forecasts in Astra were made: “It is, after all, all about growth; to talk about products, the market and competitors. What kind of growth do these products have, which margins can we expect. And you have the entire financial part, you have the profitability aspect. All this adds up to a quantified forecast, where we quantify our prerequisite for growth, the volume assumptions we have, the price assumptions we make, the market shares the products will capture, what margins we can expect, do we see any pricing pressures, what are we doing in terms of research and development, how will the net of financial items develop, how do we invest the surplus, at what rate can [we] finance ourselves, all of this. AT WHICH LEVEL ARE YOU FORECASTING PRICES, VOLUMES AND MARGINS, IS IT AT PRODUCT LEVEL OR IS IT AT BUSINESS AREA LEVEL OR BY MARKET? Most often it is by business area. You have to try to base yourself on the reporting that the companies have. It is senseless for me to sit and discuss margins on Losec, when I will never get feedback from the company about if I am right or wrong. Instead I have to try to base myself on the information that is provided in the annual report and, naturally, talk to management based on this, and then come up with my own forecast. I obviously include individual products as a basis in my model. Do I believe that this product will increase and if it is very profitable, then it is obvious that it will influence my forecast for that business area. But I can't break this forecast down in absurdum because one has no information.”*

Only the short-term expectations were quantified and treated separated from the long-term expectations. Positive long-term expectations was a necessary criterion for including Astra in the portfolio in the first place, but the short-term expectations were important for the portfolio weight increase from late March 1994 and onwards.

Equity valuation

The short-term quantified expectations were very important for the share appraisal. I-1 calculated P/E-ratios on the basis of their forecasts and compared these with the P/E-ratios for other pharmaceutical companies and for companies in other industries. The analyst described the appraisal of the Astra share by the end of the first quarter as follows:

“Astra’s valuation during this period has come down significantly. In the light of the growth [Astra] has, it looks cheap compared to both other sectors and other pharmaceutical companies. CAN YOU DESCRIBE HOW THE ACTUAL EVALUATION IS PERFORMED? Well, especially then this type of company, it is of course the P/E ratio. There is historic valuation; competitor valuation; [and then] perhaps [one] discounts the 96 profit with some suitable yield requirement to arrive at what one thinks is a justified price for the share. HOW WAS IT IN THE ASTRA CASE THEN, CAN YOU REMEMBER? Well, in the Astra case, first it was low in a historical perspective and, secondly, their valuation was low in a competition perspective. Thirdly, they were valued low in view of the growth that awaits them for the coming years. WHAT DID YOU THINK CARRIED THE MOST WEIGHT? Well, I don’t know if that is a very interesting question actually, because I argue that you make an aggregated assessment. [However] with all due respect to historic valuation, but we cannot base our decisions on [that]. There may be reasons why they should be valued lower now than what they have been valued at in the past, so there is actually nothing to guide you after you have looked in the rear-view mirror. Still, that is one way. There may [also] be reasons why Astra should be valued lower or higher compared to the competitors. It is obvious that the important thing is that you have a valuation that is in some way adapted to the profitability and the growth and the return that may be expected going forward. Because, to be sure, we do know the current price today. So it is obvious that that is what has the greatest weight but everything else can also be considered. We can declare that we have a company such as Astra, which is expected to grow faster than the competitors and yet is valued lower. Expected to grow rapidly, but perhaps not as rapidly as the growth during the latter part of the 1980’s and the beginning of the 1990’s, but still very good growth, so why should

it be valued so much lower now than what it was then. HOW THE MARKET MAY TRY TO THINK, ARE YOU TRYING TO...? Yes, that we must also weigh in. [If] we have an assessment to the effect that Astra will make x kronor per share in 1996 and the market thinks x-3 kronor and we are sure that we are right, then that further strengthens our argument. When the market then realises that Astra will make what we think it will do, then the share will rise on that. YOU ARE LOOKING AT WHAT IS CONSENSUS FORECASTS HERE? Yes, exactly.*

In summary, the valuation reasoning focused very much on linking expected EPS for the current year and the next few years to the current share price.

Reduced company-related uncertainty

Prior to 1994, global uncertainty prevailed regarding pharmaceuticals. Political reforms and changes in customer behaviour had led to price pressure. Stabilisation occurred during 1994. One of the interviewees described this as follows:

“Now we know more about what the overall world picture looks like. Naturally, the old trends persist; we have health care reforms in a number of markets, we know that there will be more, but in some ways one has adapted to this now. Continued pricing pressures, of course, we know that there is more to come, but still. The companies have in some fashion begun to handle this ‘environment’.”*

Still, for Astra, the uncertainty regarding Losec and the German Registration Authority (BGA) remained during second and third quarters of 1994.⁶

⁶ On 4 August 1994, BGA decided to withdraw the approval for Losec in the intravenous injectible form for one year. Before that, Astra tried to find ways of meeting BGA's demands in order to prevent the approval from being withdrawn. The European Union's pharmaceutical committee (CPMP, Committee for Proprietary Medicinal Products) was also asked to give an opinion, and at an extraordinary meeting on July 25, they concluded that "...no causal association had been established between the use of Losec injection and the concerns raised by the German Health Authority, and recommended that this be reflected in the Prescribing Information" (source: Press Release from Astra, July 26). The I-1 analyst described the handling of this uncertainty during March to July as follows: "It's clear that what you do in this situation is naturally an assessment of management. Are they credible, do they know what they are talking about? Obviously, the whole thing is further reinforced then by a number of other sources that come out and say that Losec is safe, the Swedish Medical Products Agency and other international organs as well. So by and large the situation was that it was BGA against the whole world in the end and we then got an inkling of BGA's reasoning or what

However, at the beginning of the second quarter, I-1 decided to fully trust Astra's opinion. The analyst described this process as follows:

"There were many turns back and forth here...difficult...there was one thing after the other from BGA, such as statements in one direction or another. And there was Staffan Ternby at Astra, who made statements in yet another direction. I think that we felt convinced all this time that Losec was safe and this is not hindsight wisdom. But if one knows that this uncertainty exists in the market, then there is no reason to go against it (at the beginning of March). I think that we then realised that Astra was right, [and] then there was in some way only a bit of government encroachment over the whole thing. We began to buy during the second quarter when we thought that, okay, there is uncertainty; [but] we consider the valuation to be that low. I think we are speaking here about very low share prices; they were down to 150 certain days and I thought they were very attractively valued. We didn't believe there was anything in the forecast we had for the current year that had changed; we made the judgement that now the market has over-reacted and this will resolve itself, but [in March] we didn't feel quite...we were so to speak not quite ready to take the full consequences of this analysis."*

In summary, I-1's company fundamental opinion of Astra was rather detailed, and consisted of qualitative long-term expectations, quantitative and qualitative short-term expectations, and a valuation of the Astra share based on P/E ratios related to historical P/E ratios for Astra, other stocks' P/E ratios, and the expected future earnings growth. The uncertainty about Astra's main product was handled in two ways. Firstly, the immediate effect of the increased uncertainty was to refrain from action, collect as much information as possible, and go with the market. Secondly, as soon as I-1 had formed their opinion about Losec and BGA, they dared to make larger buys, although BGA's decision was still very uncertain at that point in time. At a

should I say. They were under tremendous pressure after that German blood scandal and I suppose we felt that they simply over-reacted here. We must of course try to make an overall assessment. Is there any information that BGA has that is unknown to us? Is there anything in what they say that can be something? You must look all the time both at what Astra and BGA say, and then you have to try to see what you believe in. Is Astra right or is BGA right? This time I was right and hopefully I should be right. I am not right 10 times out of 10, no analyst is, but I should be right more times than I am wrong and it's then that I am a competent analyst. In my job, it is very much about handling uncertainty. There are many who say that uncertainty is so horrible, but I think uncertainty is good. That's what makes it possible for me to be a better analyst than other people are."*

certain point, I-1 changed from being ruled by uncertainty and other investors' expectations to having more faith in their own expectations. The second company visit appeared to play a very important role in bringing about this change.

I-2

I-2 began their large buys at the end of May 1994, and the investment decision then was to increase the portfolio weight of Astra a few percentage points. The important factors here were (i) the low pricing of the Astra share, and (ii) signals and statistics regarding the behaviour of US investors, which indicated that they were changing their attitude towards pharmaceutical stocks. One of the I-2 interviewees described their reasons for this as follows:

“WHEN YOU THEN CHOSE TO WEIGHT UP AGAIN, WHAT WAS IT THAT CAUSED THAT? Well, there were several things. First, we could see that the pharmaceutical stocks had taken a good beating, and we felt that the valuation was starting to come down to a level where we no longer were sure that this would fare worse than index. Because at the same time cyclical companies had been valued higher. In addition, we also had a company in Sweden (Astra) which then is one of the pharmaceutical companies with volume growth and the valuation of which had been thoroughly depressed. We began to think that Astra was inexpensive from a valuation point of view with the kind of growth we were adding to the equation. At the same time we began slowly to see signs to the effect that the trend of lower valuation was coming to an end, and especially in the United States one had begun to discount in much lower price increases. We go to the United States several times a year, both our USA guy and myself, and we talk to the major firms; and in our contacts with them we were beginning to feel that people are not quite as rigid as before. You almost began to sense that things were starting to bottom out. At the same time, one very good factor to look at here is what the foreigners are doing in Astra. You have statistics month by month and if you look at it, the flows turned around for the first time in May. First, the foreigners had been net sellers very strongly up until May, and then they reversed that. Then they went back a trifle, but at least this was a first signal that foreign investors were beginning to regard Astra as an interesting stock again. Since the foreigners also have dominated so markedly in Sweden this year, this was obviously an important signal. It doesn't necessarily always have to be an important signal, but this year it was an important signal. This is a process. Here (in May) we began to feel that we couldn't stay at [our low portfolio weight] any longer; we should probably have a little more.”*

The decision to increase Astra shares was also part of a strategic decision to increase pharmaceutical stocks. During July, I-2 increased their Astra portfolio weight somewhat more, due to the low share price. One interviewee said:

“Down there we felt that the share was extremely cheap, so we bought quite a bit between 145 and 160.”*

However, the decision to significantly increase the portfolio weight was not taken until after a company visit in early August. As described above, Astra tried to find ways of meeting BGA’s demands in order to prevent the Losec approval from being withdrawn. Astra received support from Svenska Läkemedelsverket and from the European Union on July 25, but on August 4, BGA decided to withdraw the approval for Losec in the intravenous injectible form for one year. One reason for I-2’s company visit at the beginning of August was to reduce the uncertainty regarding Losec. The visit, and the large purchase thereafter, was described as follows by one of the interviewees:

“I know that I and [the analyst] were out to meet the entire Astra management in Södertälje at the beginning of August. The pharmaceutical side was in focus and it is obvious that [corporate visits] often occur in precisely such situations. Håkan Mogren had been on TV also and I think that it is clear that it was a very positive picture that was being drawn. It is obvious that these kinds of things also make you initiate an update of the company [analysis], which we do then by going and visiting the company from time to time. The analysts of course have control all the time, but [the portfolio managers] often tag along so that we as decision-makers also get a feeling for what is happening. The situation isn’t that the analysts only serve us this, but especially on the home market we have every opportunity of participating in the process. Now Astra I happen to know fairly well; I have, after all, met with Astra for many years. And when one does such a follow-up, it is clear that one tends to get different types of impressions: a positive corporate leader; when you discuss different things, there were many things that also looked better. One thing was [the uncertainty regarding BGA and Losec], one of those things that are important to bring up with management when you meet. It was also obvious [to discuss] to [what] extent Astra had been affected by the pricing pressures, and at the same time the volume growth that one sees ahead. There we also got a feeling that it looked very positive. In addition, there was the

thing with the effect of the combination helicobacter and Losec and what that meant for Losec on a long-term basis. It was these types of questions that were discussed a lot at this meeting. We arrived at a very positive evaluation of the visit and that definitely influenced this last process, and we did a lot at the end of August.”*

The quotation illustrates that the company visit seemed to reduce the company-related uncertainty, and that it had a direct impact on I-2’s decision to buy more Astra shares.

I-3

I-3 also bought more Astra shares during the third quarter, in connection with favourable news and share price decreases.

4.2 An interpretation of the Astra investment decision cases in terms of the developed conceptual structure

4.2.1 Development during 1993

During 1993 both I-1 and I-2 sold Astra shares and lowered their portfolio weights compared to the index weight. Their reasons for this were very similar. In terms of investment factors, the fundamental basis at the company/industry level and stock market conditions were the important factors, and the logic was as follows. Firstly, I-1 and I-2 expected world-wide price pressure on pharmaceuticals due to expected health care reforms around the world. This pressure would directly affect company fundamentals in all pharmaceutical companies. Secondly, I-1 and I-2 believed that Astra would cope better with the price pressure than other companies in the pharmaceutical industry because of their volume growth and somewhat unique products. Thirdly, I-1 and I-2 were influenced by how they believed other (foreign) investors would react to this (stock market conditions). They believed other investors would lower their share appraisals and their portfolio weights of pharmaceutical stocks. If these other investors sold out, I-1 and I-2 believed that the share prices of all pharmaceutical stocks would be lowered, including Astra’s. Given this reasoning, both I-1 and I-2 lowered their

portfolio weights of Astra during 1993 to much below the index weight. The basic belief that Astra was a very good company and that Astra would cope better than others with the expected price pressure was an important reason for I-1 and I-2 keeping a certain amount of Astra shares in their Swedish portfolios. In addition, I-2 reasoned that since Astra had such a large index weight in Sweden, a complete sell-out implied too large a portfolio risk compared to the index in the Swedish portfolios (stock market conditions). I-3's Astra investment decisions during 1993 were not covered in the interviews.

4.2.2 Development during the first quarter of 1994

I-1 and I-2 sold more Astra shares during the first quarter since they still believed the stock price to be too high compared to their share valuations (fundamental basis at the company/industry level). A secondary selling reason for I-2 was the need to finance buys of business-cycle-sensitive stocks (internal financing consideration). Both I-1 and I-2 stopped selling Astra as the share price went down during March, after the negative news regarding Losec and BGA that began on March 3. However, neither I-1 nor I-2 started buying Astra during these weeks. According to I-1, there was a period of uncertainty here, related to Losec-BGA, which held them back. I-2 indicated that the Losec-BGA news might have had some marginal effects on their behaviour (non-action) during this period. In terms of investment factors, the increased uncertainty regarding Astra's main product has to do with the fundamental basis at the company/industry level. However, it also seems relevant to consider whether I-1, and perhaps also I-2, changed their internal strategy for dealing with uncertainty during this period of non-action (certain contextual conditions). Both I-1 and I-2 thought Astra to be cheap at SEK 150–160 during this period, and they were both much underweighted, but they did not act. A few weeks later they bought at the same price level; one argument was that they did not dare to be so underweighted any longer. I interpret this as a change in emphasis during these weeks, from company-related uncertainty to portfolio risk considerations. The underlying reason for I-3 to increase their Astra holding was that they believed that Astra's fundamentals were better than the share price development reflected (fundamental basis at the company/industry level). They believed that the share price decline was due to other investors' focus on business-cycle-sensitive

stocks (stock market condition), but they expected this trend would later change. I-3's own portfolio strategy was also to gradually change from business-cycle-sensitive stocks to more stable equities such as Astra (certain contextual conditions).

4.2.3 Turn-around from selling to buying

The relevant factors for I-1 and I-2 in connection with the switch from buying to selling at the end of March were their fundamental basis regarding the industry and the company, the internal strategy for dealing with uncertainty (company emphasis versus portfolio emphasis; certain contextual conditions), and stock market conditions (the price decline per se and expectations regarding other investors' behaviour). Both I-1 and I-2 had positive short-term and long-term expectations for Astra as a company, especially I-1. At share price levels of SEK 180–190, they both found the share to be too highly priced, but this view changed as the share price decreased. Positive expectations combined with a lowered share price were necessary criteria for both I-1 and I-2 for the initiation of action. In addition, there were two aspects of uncertainty that affected the actions taken. Firstly, both I-1 and I-2 said that as the share price came down, the portfolio risks of being materially underweighted increased. This was an argument for buying more Astra. Secondly, I-1 was affected by the company-related uncertainty regarding BGA and Losec, and this made I-1 refrain from larger buys at the end of March despite the above positive factors. To some extent this also seemed to apply to I-2, who bought nothing in March, and only a small number of shares in early April.

4.2.4 Development during the second and third quarters of 1994

The relevant factors during this period were the fundamental basis regarding the industry/company, the internal strategy for dealing with uncertainty (company emphasis versus portfolio emphasis; certain contextual conditions), and stock market observations. I-1's company visit at the end of March reduced the company-related uncertainty and strengthened their already positive company fundamental opinion. On the basis of this, I-1 made large Astra buys during the second and third quarters. The fact that foreign investors started buying pharmaceutical stocks during this period (May and onwards) seemed to reinforce I-1's decision to buy (stock market observa-

tions). I-2 had similar reasons for buying more Astra, although the timing and order were somewhat different. I-2 had a stable positive fundamental basis regarding the industry/company, and the pricing of the share became more attractive as the share price decreased (stock market observations). However, signs of a change in foreign investors' opinions about pharmaceutical stocks (stock market observations) were also needed before I-2 took the decision to make a first material portfolio weight increase. In contrast to I-1, I-2's decision was not Astra-specific, but concerned the pharmaceutical industry in general. I-2's Astra buys continued from the end of May and throughout June. During July, more shares were bought in connection with a new share price decrease. During I-2's visit to Astra in early August, its uncertainty regarding Losec-BGA was reduced, and its short-term and long-term expectations were improved. After this meeting, I-2 decided to make a second material portfolio weight increase in Astra. I-3 had a very positive view of Astra with respect to company fundamentals, and they bought more Astra shares in connection with price decreases and favourable news regarding Astra.

4.2.5 Impact of financial information on the investment decisions

The impact of information on I-1's and I-2's Astra investment decisions appeared to be very similar. Firstly, they both used financial reports as a basis when they made their earnings forecasts. They then used these forecasts to calculate P/E ratios and, in turn, these P/E ratios were important for evaluating whether the share was highly or lowly priced on the stock market. Secondly, information about the present and future investment behaviour of other (foreign) investors was also critical for several of the investment decisions. Thirdly, both I-1 and I-2 used non-public information in order to reduce the company-related uncertainty, and as further input for their long-term and short-term expectations. This information seemed directly decisive in some cases. Fourthly, the short-term share price fluctuations affected the investment decisions. In many of the investment decision situations, action was initiated by observed share price changes. Fifthly, information about Astra's customers influenced the investment decisions (the health care reforms). I-3 differed somewhat in that it did not use non-public information from Astra, and it made much less use of financial re-

ports than I-1 and I-2 (I-3 did not make its own EPS forecasts). Instead, I-3 relied much more on external advice from analysts that were considered trustworthy.

4.2.6 Nature of the expectations

The expectations that I-1 and I-2 developed could be characterised as:

- having both a qualitative and a quantitative content in the short term, and a qualitative content in the long term
- having a medium degree of originality
- having a high degree of detail and comprehensiveness

I-3 differed from I-1 and I-2 in that it had much more diffuse short-term and long-term expectations, with a low degree of detail and comprehensiveness. At the same time, I-3's expectations were somewhat more original, in the sense that they dared to go against what they perceived to be the market expectations. I-1 and I-2 appeared to be somewhat more anxious not to deviate too much from the dominating foreign investor attitude towards pharmaceutical stocks.

4.3 Some further conceptual remarks

The six factors used to analyse the Astra investment decisions in section 4.2 belong to three different categories: the investment object (factors 1 and 2), the stock market (factor 3), and the institutional investor as such (factors 4, 5 and 6). This was described in section 3.4. In chapters 5–9, the six factors will be grouped into these three categories called fundamental opinion (covering factors 1 and 2), market premises (covering factor 3), and contextual premises (covering factors 4, 5 and 6).

The concept of “fundamental opinion” is central in this thesis, and therefore needs to be further explained. The fundamental opinion is the institutional investor's opinion of the investment object. With regard to separate companies/equities, the fundamental opinion includes both the investor's expecta-

tions of what the company will achieve in the future and the investor's private appraisal of the share. However, the term "fundamental" is not delimited here to intrinsic equity valuation or particular valuation attributes (see section 2.5). The term "company/industry fundamental opinions" will sometimes be used as a summary concept for the fundamental opinions that institutional investors develop regarding companies/equities and industries.

In principal, the fundamental opinion could be autonomous, and based primarily on the institutional investor's own analysis of financial information from the company. However, in practice, the fundamental opinion is also to some extent influenced by information provided by information intermediaries who have synthesised and interpreted the raw data,⁷ such as stock broker firms or firms specialising in equity analysis. Some empirical results in this thesis concern the extent to which institutional investors rely on other market participants when developing their own fundamental opinions (section 5.5).

Another important concept in this thesis is "market premises", which aims to capture how the institutional investor's observations of the stock market influence its investment actions. For example, the observation of low liquidity in a share could restrict investor action. One type of stock market observation concerns the actual and expected investment actions of other investors (section 6.2.3). The distinction between fundamental opinions and market premises is based on the basic difference between, on the one hand, the institutional investor's own opinion of the investment object and, on the other hand, how the institutional investor is influenced by other investors' actions on the stock market.

Two other concepts that need to be clarified are "public information" and "non-public information". During the analysis work, public and non-public information emerged as useful categories. Public information was defined as including all information that is equally available to the mass media. With respect to quoted companies, this included all the information that they publish in writing (financial reports, press releases etc) or verbal presenta-

⁷ This formulation regarding information intermediaries is based on Beaver's (1989, p 12) discussion concerning information intermediaries.

tions in forums to which the media have access. Non-public information was defined as the information that is not public, such as information from external advisors to their client institutional investors, or verbal information from quoted companies to institutional investors to the extent that this information is not available to the media. It should be emphasised that while non-public information need not be insider information, non-public information includes insider information.⁸ Nor does an institutional investor's use of non-public information necessarily imply that a quoted company has acted against the Stockholm Stock Exchange registration contract. These definitions serve to avoid taking any standpoint with respect to (a) whether the empirical data include insider trading that would be against Swedish law, and (b) whether any of the quoted companies have acted against the rules in the Stockholm Stock Exchange registration contract.

⁸ The Swedish insider law that was in force during the period covered in the thesis (Insiderlag 1990:1342), gives the following definition of insider information (*ibid*, 4§): "...information or knowledge about a circumstance not made public, which is calculated to significantly influence the price of a stock exchange security."*

5 Fundamental opinions about the investment objects

This chapter is the first out of five chapters presenting empirical results. The findings presented in chapter 5 concern fundamental opinions about investment objects – how they are developed and their importance for investment decision purposes. Chapter 6 includes empirical results regarding factors that can cause deviations from investment action in line with the fundamental opinion. The other empirical chapters deal with the reasons for action in different decision situations (chapter 7), how the institutional investors handled uncertainty (chapter 8), and organisational aspects and time lags (chapter 9).

5.1 Basic results

The case companies tended to describe their investment alternatives as belonging to four different investment object levels: asset level, geographical level, industry level,¹ and company/share level.² In turn, they tended to develop fundamental opinions about the investment objects at these different levels.

The company/industry fundamental opinions turned out to be particularly important in explaining the institutional investors' equity investment actions. Categories involving company and industry fundamentals often came up during the classification work, and many of the narratives linked to the 579 investment decisions belonged to such categories (see section 3.4). This was also exemplified in chapter 4, in the descriptions of investment decisions regarding Astra.

¹ This level could also concern broader categories of stocks, such as business-cycle-sensitive or interest-sensitive stocks.

² Investment alternatives are further dealt with in section 6.4.

5.1.1 General characteristics of company/industry fundamental opinions

The fundamental opinions about companies/shares and industries were based on expectations of the quoted companies and their industries, and of appraisals of the quoted companies' shares. The expectations could be further divided into the following three categories:

- Quantified short-term expectations (forecasts), typically up to 2–5 years ahead. These expectations formed the main basis for the valuation of the share.
- Non-quantified short-term expectations. These were short-term expectations that the institutional investor had decided not to quantify.³
- Long-term expectations. These were expectations beyond the quantified short-term expectations period, and they were typically non-quantified. They concerned long-term expectations regarding what products, industries, and business strategies would become successful in the long run. Growth prospects had the most impact on these expectations. No clear link existed between these long-term expectations and the horizon values used in the share appraisals.

The interviewees often referred to both short-term and long-term expectations when they described their reasons for action. It was also relatively common for interviewees to refer only to short-term expectations, while it was uncommon to refer only to long-term expectations.

The results in this sub-section are based on the analyses described at the end of section 3.4.3 (p 88). With respect to these results regarding the company/industry fundamental opinions, no systematic variations were observed across case companies or across different investment decision situations.

³ Whether expectations were quantified or not depended on the nature of the information on which the expectations were based. This is dealt with in section 5.2.

5.1.2 Two basic case company differences

One major case company difference concerned information source orientation. Four case companies (Alfa, Bravo, Delta, and Echo) were *company-information-oriented* (CIO) with regard to Swedish quoted companies. They had internal analysts whose analyses were based on information supplied by these companies. The other four case companies were *external-advisor-oriented* (EAO) with regard to Swedish quoted companies. Two companies had no internal analysts (Charlie and Foxtrot); the other two did have internal analysts, but they relied primarily on external advisors (Golf and Hotel). Thus, the presence or absence of internal analysts relying on information produced by the quoted companies was a major difference between the CIO and the EAO case companies.

Portfolio size was an important factor in the choice of information source orientation, because a larger portfolio made it easier to justify the extra costs associated with internal analysts. However, the choice was also influenced by the investor's strategy for attracting customers' savings, the analysis orientation and the management's opinion (see section 6.5). Differences in information source orientation were important as they determined what information the institutional investor used, and how it was used. This is illustrated by the following quotation from a manager in one of the CIO case companies:

“We have two approaches. As far as the Swedish portfolios are concerned, we have a higher level of ambition: we strive to be self-reliant in terms of basic investment data. We don't ask for advice, we don't buy advice in the true sense. We try to press down commissions and the like as much as possible and we are self-sufficient. Abroad, we work entirely different. There, one person has overall responsibility at the market level, country level, [and] we buy advice. We try to develop a contact network with, typically, 4–5 advisors in each individual market. We continually follow up on the advice we get and see from whom we get the best input over time. We build broad portfolios that do not differ too much from index. In Sweden, we try to be proficient at the company level. Abroad, it's the all-embracing level.”

The working procedure described with regard to Swedish companies/equities illustrates the direction in which the CIO case companies strived. The working procedure described with regard to foreign companies/equities is an example of an external-advisor orientation.

A second case company difference concerned analysis orientation. Three of the case companies were primarily *top-down-oriented*, which meant that they put a relatively large amount of emphasis on macro-economic factors. Two of the case companies were primarily *stock-picking-oriented*, which meant that their focus was on company-specific factors. In the remaining three case companies, neither the top-down perspective nor the stock-picking perspective dominated the analysis approach. All of the case companies appeared to have quite clear ideas of how to organise their analysis work in order to perform well. An interviewee in one of the top-down-oriented case companies described their general procedure as follows:

“We begin one of these asset allocation meetings by having [our chief economist] give a macro-economic presentation. We try to place different countries and regions according to which cyclical phase they are currently in. We look at a number of business and financial ratios: inflation, GNP growth and a lot of things like that. When he has given his presentation, the equities manager and the manager of interest-bearing securities add, so to speak, the market’s opinion. What has the market discounted, what does it think about the future. Based on this, we are then supposed to create a consensus opinion on what the future looks like for different types of investments, different industries, different currencies, in such a way that we all agree. Based on this, we discuss: Where should we be over-weighted? And where should we be under-weighted?”*

The choice of analysis orientation could be described as a balancing of top-down thinking against stock-picking thinking. EAO case companies tended to be somewhat more top-down-oriented than CIO case companies.

5.1.3 Summary of findings

The findings presented in this section could be summarised as follows:

1. Fundamental opinions concerned several investment object levels – assets, geographical areas, industries and individual stocks.
2. Company/industry fundamental opinions constituted an important reason for institutional investor action.
3. The institutional investors often based their fundamental opinions both on short-term expectations expressed in quantitative terms, and on short-term and long-term qualitative expectations.

4. It was relatively common for institutional investors to refer only to fundamental short-term aspects, in the perspective up to 2–5 years ahead when they described the decisive reasons for their actions.
5. The institutional investors rarely referred only to long-term fundamental aspects when they described the decisive reasons for their actions.
6. The information sources used by the institutional investors were found to vary. Some primarily based their opinions on their internal analysts' original analysis of the quoted companies. Others primarily relied on external advisors.
7. In the analysis work, the institutions balanced a top-down perspective, emphasising macro-economic variables, against a stock-picking perspective, emphasising company-specific information. Some institutions were primarily top-down oriented, while a few were primarily stock-picking oriented. In some of the case companies, none of the perspectives dominated the analysis approach.

5.1.4 Comparison with prior research

The empirical result that company/industry fundamental opinions constituted an important cause of institutional investor action, could first be compared with prior empirical studies at the disaggregated level (sections 2.1–2.4). To sum up, the results in these studies support a strong position for company fundamentals. This is true of the studies of institutional investor organisations that are relevant to compare with in this context (Holland and Doran, 1998; Gniewosz, 1990; Finn, 1981), and it is also true of the studies of professional individuals who work for institutional investors as staff or as external advisors (for example, Olbert, 1992; Previts *et al*, 1994; Rogers and Grant, 1997; Barker, 1998). However, none of the prior empirical studies at the disaggregated level examines the reasons for specific real-world investment actions.

A comparison could also be made with prior research at the aggregate level. Here Runsten's (1998) results suggest that company fundamental factors (changes in abnormal earnings expectations, growth in book value) are im-

portant explanatory variables for the development of stock prices on the Swedish stock market, especially in the long run (growth in book value).

Findings 3–5 concern the expectation horizons that are decisive in connection with actual investment decisions. To the best of my knowledge, these results are not directly comparable with any prior empirical study. Several studies have investigated the forecast horizons used by analysts in their work (section 2.2.4), and the results indicate that forecast horizons are rather short-term. This is somewhat in line with the results of the present study, in the sense that short-term expectations (including short-term forecasts) were observed to have considerable impact on the investment decisions. Chugh and Meador (1984) investigated how analysts view company performance in terms of what emphasis they put on short-term versus long-term variables in the security valuation process. On the basis of a questionnaire study of US analysts, they reported that the analysts emphasised the long-run economic and financial performance of a company considerably more than the short-run development (see also section 2.2.3). This is not in line with the results of the present study. There are several possible reasons for the somewhat contradictory results. One is that the Chugh and Meador study refers to a different time period and a different country. Another possible reason is that the respondents emphasised the long-term perspective because they felt that this was the appropriate answer.⁴ This could also be a problem in the present study, but the focus on specific investment actions had certain methodological advantages with regard to interviewer effects (see section 3.3.2). A third reason is the possible non-response bias in the Chugh and Meador study; the response rate was only 20%.

Conclusion 6 concerns a difference in information source orientation across institutional investors. To my knowledge, this particular difference has not been emphasised in prior research. O’Barr and Conley (1992a) reported that one of the fundamental decisions made by the pension funds they studied, concerned whether the actively managed assets should be managed by in-house staff or by external managers (see section 2.1.3). However, this is not the distinction focused on in the present study. All the institutional investors

⁴ O’Barr and Conley (1992a) discuss the “rhetoric of the long-term” in the pension funds they study (see section 2.1.3).

studied here managed nearly all their assets actively with their own staff. Instead, the difference emphasised in conclusion 6 concerns their choice of primary information source for financial information about the quoted companies, i.e., whether to primarily use information provided by the companies or whether to primarily rely on external advisors.

Conclusion 7 concerns differences in analysis orientation across the institutional investors. The differences refer to the “top-down” and “stock-picking” concepts, which seem to be very common in practice (see, for example, Sears, 1991; Affärsvärlden, 1998), but which have received little attention in prior empirical research.

5.2 The development of fundamental opinions about companies/equities

This section deals with the case companies’ use of information for the development of fundamental opinions about companies/equities.

5.2.1 Basic results

The case companies formed expectations regarding the quoted companies. These expectations were expressed either in qualitative terms or in quantitative terms, i.e., forecasts; the forecasts were then used for equity valuation purposes. For the development of forecasts, the case companies preferred to use quantified information (e.g., financial statement information, industry statistics, raw material prices, external analysts’ forecasts), most of which was public information.

The EAO case companies typically based their forecasts on observed market expectations, and expressed their own standpoint in relation to this. External advice played an important role in this process (this is further described in section 5.4). Compared with the CIO case companies, the EAO case companies’ expectations were typically based on a narrower and less detailed view of the company, and were often linked to a specific idea or story regarding the company.

The CIO case companies did their own forecasting, made their own equity valuations, and developed their own investment decision foundations. Their expectations were typically rather detailed and comprehensive regarding, for example, the companies' products, markets, management and strategy. All of the CIO case companies produced their quantitative analyses in spreadsheet models. One reason why the CIO case companies preferred to base their forecasts on quantified information seemed to be that this information could be fitted relatively easily into their spreadsheet model structures.

5.2.2 Fundamental opinions about companies/equities

The institutional investor's quantitative analysis consisted of forecasts and equity valuations. In the next step, this quantitative analysis was often adjusted for a number of qualitative "pluses" and "minuses", and the outcome of this process could be described as the institutional investor's fundamental opinion about the company/share. In other words, the quantitative analysis was subject to plausibility reasoning where qualitative aspects were added. This is illustrated by the following quotation from one of the interviewees regarding the bases of their decisions:

"This is not fine arithmetic you must understand; it is calculations as a basis, but with large margins, and then verbal assessments."*

This quotation represents a very common way of reasoning among the case companies. A direct, mechanical relation between the quantitative share appraisal and the investment decision was very uncommon.

With respect to the qualitative aspects that were added to the quantified analysis, non-public information about the quoted companies was particularly important. This information was collected in meetings with the companies and with external advisors. Among the CIO case companies, information collection concerning the qualitative aspects was an important purpose of meetings with the quoted companies. The following quotation from one of the interviewees is representative of how the CIO case companies reasoned.

"CAN YOU SAY WHAT THE CORPORATE MEETINGS MEAN FOR YOUR INVESTMENT MANAGEMENT? IS IT THERE THAT YOU GET YOUR UNIQUE INFORMATION AS YOU SEE IT? Yes, I think so, but not as much as 4-5 years ago. First of all, there are many more who operate like we do today and

come out and meet with the companies. Secondly, [the companies] have begun to learn that they actually can't give any information that affects market pricing, [information] that is unique. It is more a matter of the soft factors that you extract, a qualitative evaluation of companies and the people in management. To still get the opportunity of asking your own questions and get an opportunity to interpret their answers. DO YOU TRY TO CAPTURE THESE SOFT FACTORS QUANTITATIVELY? No, I think it's very hard to do that; it becomes more of pluses and minuses. You could say that this is a qualitative aspect for the investment decision. But not quantifiable.”*

The most common qualitative “plus” or “minus” factor concerned the quality of management, both with regard to how well the manager worked inside the company, and how s/he related to the analysts. This could be illustrated by the following quotations from two of the case companies:

- “We often have an [earnings] estimate, we are calculating something and then we have several verbal comments, positive and negative factors, opportunities and risks. Management is, I suppose, one such thing that we often comment on. In a company like Ericsson, which must generate good earnings growth not only for three years, but perhaps for 10 years into the future in order to defend its valuation, one must make a qualitative assessment in some way. What I usually do is to try to be a little pragmatic...you say that you can defend a slightly higher valuation because there is good management.”*
- “[After the report] we always get an invitation to their presentation. There, one sees if the people standing there are happy to be there or if they want to get away as soon as possible. It comes out in the open rather quickly when they sit there and are asked lots of questions. But it's one of these soft variables that you cannot include in an analysis.”*

An important reason for adding qualitative aspects was that they were considered to reduce the uncertainty linked to the investment object (see section 8.4). In several cases, non-public information regarding qualitative aspects was directly decisive for investment actions. Two examples of this were presented in chapter 4.⁵

⁵ The first example is I-1's meeting with Astra's management in March (section 4.1.3). The second example is I-2's meeting with Astra in August (section 4.1.4).

5.2.3 Summary of findings

The findings presented in this section could be summarised as follows:

1. The institutional investors' fundamental opinions about particular companies/equities were often developed as a quantitative analysis, in terms of forecasts and an equity valuation, adjusted for a number of non-quantified pros and cons.
2. Non-public information played an essential role in forming the fundamental opinions about companies/equities. In addition, this information could help trigger equity investment actions.
3. Assessments of managers and their personalities constituted the most common non-quantified matter of judgement. These assessments not only concerned what the manager did inside the company, but also how s/he related to the analysts.

5.2.4 Comparison with prior research

Several studies have reported results that are in line with conclusion 1 above. Barker (1999b) studied the practical choice analysts made between alternative valuation models – in particular the choice between using the P/E ratio or the dividend yield model (see, for example, Brealy and Myers, 2000, p 67). Barker described his results as follows:

“...as a general conclusion, formal valuation models may be regarded as playing a limited role in the valuation of companies. The dividend yield model is used as a first screen...Beyond this first screen, the analyst or fund manager explores mostly subjective, company-specific information...and such information is not then formally fed back into a valuation model...In other words, valuation models – and in particular dividend yield and the P/E ratio – are used as a point of departure, as a basis from which to conduct fundamental analysis and to make investment decisions. They are not used exclusively, in themselves, to value shares.”

These results are somewhat similar to those in the present study (conclusion 1), although they are expressed in different terms. In particular, Barker seems to use the term “valuation” when he refers to the price paid for a share, whereas “valuation” in the present study refers to the outcome of the institutional investor's valuation model. Conclusion 1 could also be linked to

Bouwman *et al* (1995). In their study, GAAP-based information played a less significant role for the assessment of companies' future earnings potentials. Instead, for this purpose, the subjects in their study (financial analysts) largely relied on qualitative information and on information about individual segments (see section 2.4.2).

In a general sense, the importance of non-public information (findings 2–3) is in line with the results from prior research at the disaggregated level. Direct company contact was highly ranked in the questionnaire-based studies regarding the information sources investors and analysts use (see section 2.3.1). The studies that focused more specifically on contact between quoted companies and financial analysts/fund managers (see section 2.3.4) emphasised the importance of such contact. Among the studies of institutional investor organisations, Holland and Doran (1998) report that private information from the direct company contact was central to fund management decisions. Finn's (1981) results indicate that non-public information was important for the ability of the institutional investor to earn excess returns. Conclusion 3, regarding management assessments being the most common qualitative factor, also appears to be in line with prior research (see section 2.3.4).

5.3 Accounting adjustments

It was common to find that the case companies did not make quantified adjustments of the quoted companies' accounting. Instead, they often used the figures as the companies presented them. The EAO case companies did not focus on the company's own financial statements, but on the reports they received from external advisors. They seldom seemed to question the underlying data and the assumptions made in these reports. This is further elaborated in section 5.5.

5.3.1 Reasons for not making accounting adjustments

With regard to the CIO case companies, four types of reasons were given for not making accounting adjustments (or for making adjustments in an unsystematic way). These are described below.

1. Why adjust when the market does not adjust?

A common opinion among the CIO case companies was that there was little reason for adjustment given that “the market” (external advisors, other investors) used the accounting figures as presented by the companies. This is further described in section 5.5.

2. Communication

Another reason for not making quantified accounting adjustments, according to some of the interviewees, was that adjustments were perceived to prevent good communication with the quoted companies, with the external advisors, internally, and even with oneself over time! The quoted companies might find it strange if the internal analyst did not use their figures. The analyst would have to explain the adjustments and might be misunderstood. If no adjustments were made, the company figures could be taken for granted, and time needed not be spent on discussing adjustment issues. The following quotation is representative of this way of reasoning:

“DO YOU MAKE ANY ADJUSTMENTS TO THE FIGURES HERE? No, actually not. We do make adjustments for how they amortise goodwill and other things, but it has turned out that for the follow-up it is much easier to report exactly as the company does and then be aware that perhaps they report slightly differently. HOW DO YOU HANDLE GOODWILL WHEN YOU ADJUST? Well, the goodwill problem is complex, particularly before when [companies] did direct amortisation. Then you got fantastic profitability when large portions of the equity capital suddenly disappeared. Then we reversed it and then we amortised it over 20 or 10 years. But that problem isn't so big any more. SO NOW IF THEY AMORTISE OVER 10 OR 20 YEARS, YOU MAKE NO ADJUSTMENT? No. I perhaps make a comment in my analysis, that they amortise this quickly or slowly depending on what I think they are doing. [For example] that Electrolux amortises their American things over 40 years, when it should have been 20 or 10. DO YOU MAKE ANY ADJUSTMENT FOR THAT THEN? No, now I don't follow Lux so it's not a problem (laughter). But I still wouldn't do it, but I'd have it as a comment. Because after all, the case is often that the market buys the company's own figures and the company is valued based on that. And when you speak with companies, they think it looks strange if you have made your own adjustments.”*

3. Small effects

A third reason for not making quantified accounting adjustments, referred to by several interviewees, was that the adjustment would have such a small effect on the outcome (the valuation). In other words, materiality was im-

portant when the case companies decided whether or not to make an accounting adjustment. The following quotations, from two of the case companies, are representative of this way of reasoning:

- “It has often proven to be immensely more difficult to make these very small adjustments, despite the fact that it doesn’t make much difference, actually. Because often it is the trend you are after. Then perhaps it doesn’t matter so much if you adjust 25 million for some goodwill somewhere.”
- “Comparability is important, but you can’t adjust for every little difference; instead you must see what gives a significant effect.”*

4. Qualitative statements instead of quantified adjustments

In general, qualitative statements regarding specific accounting items, or regarding the accounting quality in general, seemed to be preferred to quantified adjustments of the accounting figures. The following quotations, from two of the case companies, are representative of this way of reasoning:

- “...No, I don’t reverse goodwill and try...what amortisation period should I apply, etc...BUT IT CAN STILL MAKE IT A BIT LOPSIDED IN COMPARISON...? Yes, of course, but the accounting quality is a part of this entire qualitative assessment of the companies.”*
- “If a company takes a large restructuring charge, we still have a little in the back of our minds that the earnings performance for the next few years becomes better than it otherwise would have been. WHAT DO YOU DO WITH IT (THE RESTRUCTURING CHARGE)? Well, we still try, like, to take it into account in our analysis. DO YOU SPREAD IT OUT OVER A FEW YEARS, OR...? No, we don’t value it so mechanically so that we, like, have any uniform rule; that we exactly know how many per cent we spread it out over. But an analysis often ends up in some kind of valuation reasoning and then it can, I suppose, be a parameter to include in such reasoning. That the earnings performance looks very good this particular year, but then you should remember that 1 billion was set aside as a restructuring reserve charged to last year’s earnings, but which you absorb this year. OKAY, SO YOU KEEP THE FIGURES AS THE COMPANY HAVE COMPILED THEM? Yes, exactly.”

“Accounting quality” and “earnings quality” were two qualitative terms used to capture the need for making a quantified adjustment of the accounting figures.

5.3.2 Summary of findings

The findings presented in this section could be summarised as follows:⁶

1. The institutional investors usually used accounting data without making any quantified adjustments.
2. Both principal and practical reasons were given for not making any quantified adjustments to accounting data: it was easier to understand other market participants' expectations, and communication with quoted companies and other parties became less complicated; potential adjustments were often perceived to have little influence on the judgements; qualitative comments were perceived to be a good substitute for quantified adjustments.

5.3.3 Comparison with prior research

The results presented above could be linked to the functional fixation literature (see section 2.4.3). Some of these studies have focused on whether the investor is sophisticated enough to make the adequate adjustments (for example, Hand, 1990). In this context, the empirical results in Miles and Nobes (1998) and Barker (2000) indicate that even external analysts lack the required accounting knowledge to deal with the implications of alternative accounting treatments (see section 2.3.3). However, the results in the present study indicate that institutional investors deliberately refrain from making the adjustments, not because they are unsophisticated, but because adjustments cause communication problems and deviations from how other market participants behave (conclusion 2). This is in line with Bréton and Taffler (1995) in that the external analysts they studied appeared to deliberately make few adjustments of their financial analyses in order to take window-dressed items into account.

Refraining from making accounting adjustments has also been observed by international accounting diversity studies (see section 2.3.3). In these studies, a common reason for refraining from making quantified adjustments seemed to be that "mental" adjustments were perceived to be sufficient. This corre-

⁶ Further results related to accounting adjustments are presented in section 5.5.

sponds with one of the reasons offered in the present study (point 4, qualitative adjustments).

5.4 Equity valuation

5.4.1 Basic results

The valuation methods that the case companies applied could be classified as either intrinsic valuation or relative valuation. Intrinsic valuation refers to when a share is appraised without reference to the market share price. Relative valuation, on the other hand, refers to when a share is appraised with reference to other, in some respects similar, equities, and when the comparison is based on ratios involving the current share price and a variable that is relevant for equity valuation purposes, such as earnings per share (i.e., P/E ratios). The EAO case companies were to a large extent influenced by the valuation methods their external analysts used, while the CIO case companies used their own equity valuation methods.

The EAO case companies seemed open to advice based on different valuation methods. However, whenever interviewees in these companies talked about valuation in some detail, they almost always referred to relative valuation involving P/E ratios.

All the CIO case companies made spreadsheet models of the quoted companies they analysed, and included their forecasts and share appraisals. The spreadsheet models were built on input variables, model relationships, and output variables. Forecasts were made of the input variables (sales, operating margins, investments etc), which via the built-in model relationships, were transformed into forecasts of output variables. The most common forecast output variable was earnings per share (EPS), and this was also the most common valuation attribute. Dividend was also a common forecast output variable, and often used as a valuation attribute in the intrinsic valuations for the period up to the horizon. For stocks in certain asset-intensive industries (investment company stocks, real estate stocks, insurance company stocks), net assets was a common valuation attribute (see also section 5.4.4). In few

empirical observations was equity valuation based on forecasted free cash flows.

In the CIO case companies, the use of valuation methods varied somewhat across different industries. For equities in mature industries, such as engineering and forestry, both relative and intrinsic valuation methods were common. For equities in high growth and R&D-intensive industries, such as pharmaceuticals and telecommunications, relative valuation was very common. The same applied to what the interviewees referred to as “internationally appraised stocks”, such as ABB. Equities in asset-intensive industries such as investment companies, real estate, and insurance were often appraised with reference to how their net assets were priced on the stock market (see also section 5.4.4).

5.4.2 Intrinsic valuation

Two of the CIO case companies made intrinsic valuations of equities based on the growth of shareholders’ equity. In one of these companies, the computation of value could be described as adding the discounted dividends year 1–5 to the present value of the horizon value. This horizon value was based on the forecasted shareholders’ equity at year 5. This case company had determined one discount rate that it seemed to use for all its present value calculations. In the other company, the computation of value could be described as adding the discounted dividends year 1–3 to the present value of the horizon value. Here, the horizon value was based on the forecasted book rate of return on equity year 3. The discount rate was determined as the risk-free rate of return plus a general risk premium times the stock’s beta value. In both these case companies, the intrinsic valuation models were used along with relative valuation for calculating justified share prices for equities in mature industries. This is illustrated by the following quotation from one of the two case companies:

“We do not only look at the relative valuation within the industry or against other companies in terms of P/E ratio, but we also have a valuation model where we calculate a fundamental value based on profitability, the required rate of return we have and how you should value shareholders’ equity. Depending on whether you have a higher or lower return, you are prepared to pay more or less for equity. It’s much like valuing a bond; if you change the interest rate, the base is changed.”*

In the other two CIO case companies, P/E ratios and relative valuation dominated. They focused more exclusively on the income statement in their valuation of equities, and the intrinsic valuation reasoning that was observed most often concerned the calculation of value in terms of the normal year earnings per share times a “reasonable” P/E-ratio, where “reasonable” could be the inverse of the required rate of return.

5.4.3 Relative valuation

Relative valuation was very common among all of the case companies. Most of the empirical observations concerned P/E ratio comparisons of different kinds. The P/E ratio was calculated as current price divided by an EPS forecast; when forecasts were for several years ahead, separate P/E ratios were typically calculated on the basis of forecast year 1, forecast year 2, and also on the basis of forecast year 3, if a forecast for that year was available. The institutions compared the pace at which these P/E ratios decreased, i.e., the forecasted EPS growth rate. P/E ratio comparisons were made with, in particular, domestic competitors, foreign competitors, other domestic companies in nearby industries, and with historical P/E trends. The relative comparisons across equities on some occasions were found to refer to Price/Cash flow ratios and Price/EBIT ratios. The case companies often made several different types of P/E comparisons, as illustrated by the following quotation from an analyst of the Swedish steel company SSAB:

“CAN YOU DESCRIBE THE VALUATION APPROACH FOR SSAB? I usually do it in three different ways. First, we have decided to have a theoretical valuation approach and then you arrive at some kind of justified value. But then we also make a comparative valuation between SSAB and other steel issues. You can of course compare SSAB to Avesta and perhaps I also sometimes develop P/E ratios for Trelleborg since it is closely related. P/E RATIO TODAY OR FORECASTED? That is to say, today’s price compared to forecasted earnings. Then I usually take the Nordic companies, you have Rautaruukki, you have Outokumpku, which actually is a commercial steel producer. Then I usually also compare it to other Swedish stocks. If SSAB, for example, were to be valued as highly as Sandvik, then that tells me that SSAB is very highly valued. Then you can also compare with a historical valuation, in other words, how companies have been valued before. Personally, I tend not to look at that so much.”*

When relative valuation was applied, the horizon value did not seem to be explicitly considered, in that the P/E ratio comparisons only focused on

earnings a few years ahead and nothing else. In addition, arbitrary weights seemed to be put on different forecast years, instead of appraising the future proportionally lower than the present via the discounting process. The following quotation from one of the internal analysts illustrates a common way of reasoning about P/E ratios and forecast horizons:

“Volvo was not particularly highly valued as such. It is still not highly valued, but the profit that you value now, if you think in two years’ perspective going forward which we have as our standard, it is beginning to become the best profit [during this business cycle], and then it shouldn’t be valued so high either. IS IT REASONABLE TO VALUE VOLVO ON ONLY TWO YEARS GOING FORWARD? No, we don’t do that overall, but only because we must have something, like, to put on paper. Then you discuss yourself around it and value in other ways as well. BUT IS THAT THE WAY THE MARKET VALUES AS YOU SEE IT? THIS TWO YEARS FORWARD? Most people have a forecasting horizon 2–3 years out and then you value that, but most people in the market today are still more sophisticated in their valuation than they were a few years ago. It has become more and more common that you do a cash flow valuation, where you run a couple of years with forecasts and value that and then you run some form of perpetual growth rate and value that. DO YOU MAKE SUCH [VALUATIONS]? No, it takes too much time. We have found, if we are a little cynical, that the decisions don’t get better because you make the valuation more advanced; instead it is more important to take in several kinds of information.”*

Regarding the arguments for using relative valuation, several interviewees believed that the more complex models were not worth the effort (see, e.g., the above quotation regarding Volvo). A negative attitude towards being too theoretical or too focused on formal valuation models was also common, as illustrated by the following quotation:

“It is very much a matter of making arbitrary estimates. This is not an exact science and you also have to adapt so that you don’t become overly rigid and almost to the last decimal try to calculate a value. Then you can often miss something that is more significant.”*

Finally, a few of the interviewees indicated that the intrinsic valuation models were difficult to apply from a technical point of view.

5.4.4 Valuation of investment company stocks

Investment company stocks (closed-end funds) tended to be appraised on the basis of the value of their net assets. The procedure when valuing such equities could be described in two steps: (a) to first estimate the market values of the different assets and debts in the investment company's balance sheet, and then calculate the net asset value as the market value of the assets minus the market value of the debt, and (b) to decide whether this net asset value should be appraised at its full value or if there should be a discount, and if so, to decide on the size of this discount.

In the empirical observations concerning investment actions in investment company stocks, steps (a) and (b) seemed to be viewed as two separate issues. With regard to step (b), the interviewees suggested a number of reasons for a discount. The most common was that the case company could handle portfolio diversification, and the selection of equities, better by itself. Another argument was that foreign investors did not seem to appreciate Swedish investment company stocks. This reduced the demand for such equities, and thus motivated a discount. However, these reasons for recommending a discount were not linked in any clear way to the size of the discount. Instead, to determine what was a reasonable discount, the case companies seemed to attach great importance both to the historical trends of the discount size and to the discounts of other comparable investment company stocks. A certain tendency was observed among the institutions to react mechanically to when the discount exceeded or fell below this reference point. An empirical example may illustrate this.

One of the case companies invested in the Swedish investment company Industrivärden in the early 1990s. Industrivärden's portfolio consisted of both quoted (Ericsson, SCA, Handelsbanken and others) and non-quoted stocks. The case company had performed a thorough analysis of Industrivärden's largest non-quoted holding (PLM, a producer of cans and bottles for beverages), and had carried out its own valuation of this holding. It then calculated the net asset value for Industrivärden as a whole, and came to the conclusion that the discount was very high. The case company then decided to buy Industrivärden stocks when the discount exceeded 30%. One of the interviewees described the reasons for the investment as follows:

“Industrivärden, that stock looks cheap and why? Well, that has to do with PLM. PLM is the most important part of Industrivärden. PLM had very large problems in Germany during 93. Sales of cans were going poorly and the environmental movement and things like that put them into a squeeze and profits dropped. The price of the share went down a lot and then we said that in our opinion, the market is valuing PLM much too stingily, and hence also Industrivärden. This will correct itself. For 95, we felt that the profitability in PLM would be back to normal again. Then we have followed up continually and have felt that our judgements have been vindicated and we have considered it to be cheap the whole time. Cheap in an investment company is then the discount relative to net asset value and Industrivärden has been down to 30, 35, almost 40 percent discount and that’s clear that we have then bought heavily into that company. Then one begins to wonder if one has made an error of judgement. As far as we can determine today, we have not done that; instead we are right on track. We think that the market is valuing wrongly and therefore we have been adding the whole time. It is a basic analysis, basic buy decision and then we have only added the whole time.”*

The empirical example illustrates that although the net asset value was carefully appraised, the discount on this net asset value seemed to have a life of its own. Thirty per cent seemed to be a level where the Industrivärden stock was considered to be undervalued; this particular discount level appeared to be critical as it was considered to be materially higher than the “normal” discount on investment company stocks.

5.4.5 Summary of findings

The findings presented in this section could be summarised as follows:⁷

1. Relative valuation was found to be common.
2. Both intrinsic and relative valuation was found to be used by institutional investors who had internal analysts, while relative valuation was most widely used by institutional investors without internal analysts.
3. In relative valuations, horizon values were usually not explicitly considered.

⁷ Some further results related to equity valuation are also presented in sections 5.5 and 5.6.

5.4.6 Comparison with prior research

The more common use of relative valuation, compared with intrinsic valuation, is in line with prior research (see section 2.2.2).⁸ Similarly, the extensive use of P/E ratios observed in the present study is also in line with prior research on equity valuation methods (see section 2.2). Furthermore, the extensive use of P/E ratios is also in line with the strong position of earnings in earlier studies regarding (a) what financial reports information analysts and institutional investor staff rank highly (see section 2.3.2), (b) what external analysts refer to in their analyst reports (see section 2.3.2), and (c) what information analysts use in experiments concerning investment analysis (see section 2.4.2). It might also be noted that the observed variation of valuation techniques across different industries, described in section 5.4.1, is largely in line with prior research (see section 2.2.2).

With regard to conclusion 3, Barker (1999b) suggests that it is the inherent uncertainty of future outcomes that forces financial analysts and fund managers to adopt a short forecast horizon and to rely on subjective estimations of horizon values (*ibid*, p 213).

5.5 Dependence on other market participants when developing fundamental opinions

A recurring observation in the empirical material was that company/industry fundamental opinions were not developed independently of other market participants. With respect to expectations, the dependence concerned adjustments to observed market expectations and adjustments to how other market participants were thought to use accounting figures. With respect to equity valuation, the dependence concerned adjustments to the equity valuation methods perceived to be prevailing on the stock market.

⁸ To my knowledge, the particular concepts of “intrinsic” and “relative” are not used in any of the prior empirical studies, but similar distinctions are made (e.g., sophisticated versus unsophisticated valuation). The distinction between intrinsic and relative valuation is used in a textbook on security analysis, by Hooke (1998).

5.5.1 Reliance on observed market expectations

All the institutional investors in this study developed perceptions of the company and industry expectations that prevailed on the stock market. They tried to capture these market expectations by calculating backwards from the share price, and by examining external analyst forecasts and external analyst opinions. A key issue was to find out which expectations were already discounted in the share price. These observations of market expectations affected the fundamental opinions that the case companies developed.

EAO case companies

The EAO case companies' fundamental opinions about investment objects often seemed to be highly dependent on external advisors' views. External advice was used to clarify the prevailing market expectations regarding quoted companies, in terms of what was discounted in the share price, and in terms of what scenarios and forecasts different external analysts offered. The case companies' expectations were then typically defined on the basis of these observed market expectations, either as corresponding with, or deviating from, the observed market expectations. External advice was an important factor in these deviations. The deviations were often formulated as directions of deviation rather than exact EPS forecast figures. The following quotation from one of the EAO case companies illustrates this:

"I suppose we have mostly seen what the brokers believe and then one looks to see if it differs. THE NORMAL CASE IS THAT YOU LOOK AT MARKET CONSENSUS AND COMPARE WITH IT? Yes, if we think that it's going to be a little better or a little worse. That is, I suppose, the conclusion of this material we have received [from the external advisor firms] and the surroundings."

The EAO case companies often seemed to make use of the observed market expectations, possibly adjusted for own views, when they evaluated interim reports and closing communiqués.

In some cases the EAO case companies were found to act more directly on the basis of external advice. An empirical example of this is the following. One EAO case company gradually bought shares in a quoted company in mid-1994, on the basis of a positive fundamental opinion about the company/share. More shares were bought until the beginning of August, when suddenly the whole shareholding was sold out at the same price level at

which the latest buys had been made. One of the interviewees described the reason for this as follows:

“I received an indication [from an external advisor] that [the company] was going to come out with a poor interim report and then I sold it. I got signals [from this external advisor] that/.../there would be a disaster report.”*

As indicated in the quotation, the external advice regarding the half-year report that was to be announced a few weeks later led to the case company selling all its shares in this company.

CIO case companies

Information from the quoted companies was the primary source on which the CIO case companies based their expectations. It appeared to be very common for internal analysts in the CIO case companies to compare their own expectations with the external analyst’s expectations. These were often used as reference points for the CIO case companies as is illustrated by the following quotation from one of the internal analysts:

“Most of the time I know what kind of forecasts the market has. After all, they come all the time. I don’t feel that it affects me very much when I make my forecasts; instead I calculate myself. There is also an abundance of forecasts in the market, everything from extreme case y to extreme case x, so there is always a huge span. Then it is obvious that if we are much lower than the market’s lowest forecast span, then that is naturally a business opportunity for us, and vice versa.”*

Although the CIO case companies formed their own expectations primarily on the basis of information from the quoted companies, it was important for them to know how their expectations compared with market expectations, and those of different external analysts. Deviations from the consensus view could imply investment opportunities, but some of the internal analysts also seemed to be somewhat anxious not to hold views that differed too greatly from those of external analysts. In particular, certain external analysts were considered experts on specific companies and industries, and their forecasts and opinions seemed to influence some of the internal analysts. An example of this is the following quotation from one of the analysts:

“...then there are also external analysts, those who are recognised as authorities on the company. After all, one can become informed of their findings, if nothing else

as a sort of comparative material when one makes one's own forecast. And see if one is totally way-off when one looks a somebody else's [forecast]."*

5.5.2 Adjusting to perceived market interpretations of accounting figures

As reported in section 5.3, it was common among the case companies not to make quantified adjustments of accounting figures. For EAO case companies, possible adjustments of accounting figures appeared to be left to their external advisors. In the CIO case companies, which used the accounting figures in their analyses, a common opinion was that "the market" (external advisors, other investors) used the accounting figures as presented by the companies (see also section 5.3). Several internal analysts described this as a reason for not making quantified adjustments of the accounting figures. This is illustrated by the following quotations from internal analysts in two of the case companies:

- "I don't know if it's so useful to readjust the figures. If you hold that this is not a real number, but that it should be 600 instead of 1192. But then it turns out that there is nobody else that is looking at it. Instead they say: 1192, that was pretty good, that was positive. The foreign firms come with their buy-analyses and this looks very good. The price goes up and you sit there and shake your head: 'Damn, they just don't get it'. But our task is to beat index. We are supposed to be watchful of the stock's price performance and then we must also have an understanding of what it is the market looks at. Then I can adjust until hell freezes over, but I don't know if I get anything more out of that. SO YOU MAKE NO ADJUSTMENTS? No. NOT IN THE BALANCE SHEET EITHER? No, but on the other hand I can have a view on profit quality and that becomes subjective then."*
- "Today's number given by the company, that the market uses, that's what I have as a basis.⁹ If you then want to be critical, that is, to enumerate all the negative factors: that this is air (pointing at the balance sheet in the annual report), this is a deferred tax receivable, this is some other kind of air; that I perceive more as quality. Because am I going to, like, sit in my own chamber and be the only person in the whole world who calls this consolidation capital something other than everybody else does? One can never be much more sophisticated than the market is, I think. Every time I discuss this, I go over the problems surrounding this deferred tax receivable, what is required for it to

⁹ This quotation refers to the analysis of a Swedish insurance company.

have its full value. I can also say that consolidation capital is a crude measurement, but it is as far as I believe, without actually having investigated the matter, how the Swedish market values Swedish insurance companies, Trygg-Hansa and Skandia.”*

5.5.3 Adjusting to equity valuation methods perceived to be prevailing on the market

A common observation in the empirical material was that the choice of equity valuation methods was not made independently of other market participants (see also section 5.4).

EAO case companies

The EAO case companies were often dependent on what equity valuation methods their external advisors used since they based their decisions in part on the external analysts’ valuations. Some of the empirical observations indicated that the EAO case companies did not have a full understanding of how their external advisors made the valuations, and what the underlying assumptions were. This is illustrated by the following quotation:

”DO YOU USUALLY DISCUSS REQUIRED RATES OF RETURN WHEN YOU TALK ABOUT THE SHARE’S APPRAISAL? I don’t want to say that we carry on such discussions, but indirectly I suppose it emerges. What I mean is that those who sit and analyse and value companies, they tell us if they think that the share is cheap or expensive, so of course it’s included. But not that we talk here in such terms, no, no we don’t.”*

When the EAO case companies made their own share appraisals, they seemed to think it important to use methods that were common on the stock market. As one of the interviewees expressed it, they want models that “work well in the real world”. Relative valuation was very common.

CIO case companies

The CIO case companies’ choice of valuation methods was significantly influenced by the valuation methods they perceived other market participants to be using. Some of the more experienced portfolio managers emphasised the importance of being flexible in the choice of valuation method. One of them said:

“We are relatively flexible. Because we have no uniform valuation model where we have all the prerequisites clear and then get a [justified] share price at the tail end. Instead, we believe that the whole stock market phenomenon is a little more complicated than that, where it’s perfectly alright to accept help from valuation models, but you cannot be too slavishly bound to a certain model. Because we have seen that the stock market is rather dynamic in how it looks at different things from time to time. I think that is more important than having a theoretically correct model which doesn’t work in the real world.”*

In particular, the use of relative valuation was often explained by referring to its use by other market participants. This is illustrated by the following quotations from two of the CIO case companies:

- “What has happened during the last few years is actually that a more American approach has been adopted in Sweden, as the proportion of foreign ownership has increased. And perhaps they don’t sit and appraise shares in the same way as we do and then it is important also to calculate in the same way as they do. They tend to either do only relative evaluation or that you look further up in the income statement and operate with EBIT multiples.”*
- “The P/E ratios and the relative valuation numbers are obviously very important and that’s not only because of what we think, but the fact of the matter is that there are many others who [use them].”*

5.5.4 Summary of findings

The findings presented in this section could be summarised as follows:

1. Observations of market opinions regarding particular companies/equities influenced the institutional investors’ fundamental opinions about what could be expected regarding these companies/equities. The market opinions were based on other market participants’ explicit opinions about particular companies/equities, and the implicit expectations underlying the observed share prices.
2. For institutions without internal analysts, their own fundamental opinions were highly influenced by the prevailing market opinions. Their own opinion was often defined in direct relation to the market opinion. External advisors played an important role in describing the prevailing market opinions.

3. For institutions with internal analysts, the prevailing market opinions served as reference points for their own fundamental opinions, but were not the deciding factors.
4. The belief that other market participants did not make quantified adjustments of accounting figures was one reason why internal analysts refrained from making such adjustments.
5. The institutional investors often chose valuation methods that did not deviate too much from what was common on the stock market. For this reason, models that allowed for simple comparisons across equities had considerable influence, especially in the institutions that did not have internal analysts.

5.5.5 Comparison with prior research

The above results concern dependence on other market participants for the development of fundamental opinions (see also sections 6.1 and 6.2). This dependence has received little attention in prior empirical studies at the disaggregated level. I have found two studies that describe observations of the kind of dependence described in the present study. Gniewosz (1990) reports that the internal analysts he studied partially modified their expected market reaction to annual report information for the current market situation (bull or bear market) (see section 2.1.1). The analysts were also anxious not to deviate too much from peer analysts' reports (*ibid*, p 228). Barker (1998) reports that the fund managers and internal analysts he studied needed external analysts in order to get a measure of the consensus beliefs of the market to use as a benchmark (see section 2.6.2).

At the aggregate level, dependence between market participants has received much attention in the behavioural finance literature, particularly in the herding literature (see section 2.6.2). However, it appears that the herding literature lacks empirical support at the disaggregated level. For example, Devenow and Welch (1996) only refer to anecdotal observations at the disaggregated level ("...in conversations, many influential market participants continuously emphasise that their decisions are highly influenced by other market participants", p 605). The results in the present study provide some em-

pirical support for dependence between market participants on the Swedish stock market.

5.6 Availability of investment alternatives and the development of fundamental opinions

The investment choices of all the institutional investors were restricted in terms of the investment alternatives that were available to them (see section 6.4). For some decision-makers, equities constituted, in practice, the only relevant investment alternative. This applied to the Swedish fund management companies and the investment company, and to a large extent also to the insurance companies' equity departments (see sections 6.4.1, 6.4.3, and 9.1.3). In one of the fund management companies, the lack of alternatives was reinforced by an internal strategy to always be fully invested in equities. One of the interviewees described this strategy as follows:

“One of our strategies is that we should be fully invested. If a lot of money comes in, we are to turn it into shares and the question is, shall we then say, ‘No we will place it in liquid form for a week here now because we believe that the market perhaps will retreat next week?’, ‘then we get in much cheaper?’. That strategy I think is a little dangerous to pursue in the long run. Instead we buy gradually so that we are fully invested all the time. It is difficult to speculate in [the market’s short-term movements].”*

This strategy meant that the only real alternative was equities, and that they had to be bought (sold) more or less as soon as savers deposited (withdrew) money.

5.6.1 Impact of few investment alternatives on the development of fundamental opinions

The perceived lack of investment alternatives affected how the fundamental opinions were formed. Firstly, it was a reason for many of the interviewees to de-emphasise the use of required rates of return (see also section 8.6.1). They argued that they would have to buy equities regardless of the level of the required rate of return. This is illustrated by the following quotations from three of the case companies:

- “REQUIRED RATE OF RETURN WHEN APPRAISING SHARES, DO YOU HAVE ANY POLICY THERE? No, we have made it simple for ourselves, because we have said that the alternative is not even to be invested in government securities. You could have such a policy too, I suppose, but we have said [that] the goal is to beat the index. BUT YOU MUST HAVE SOME SORT OF REQUIRED RATE OF RETURN THEN WHEN YOU APPRAISE? Ask the analysts, they sometimes calculate some justified prices and other things. OKAY, BUT THAT IS NOT SOMETHING THAT YOU GET INVOLVED IN? No, that’s not crucial for us. It’s a matter of choosing the right stock, but it must be stocks, it must be Swedish stocks.”*
- “It doesn’t matter that much which required rate of return we use, because we probably have to invest in equities anyway, and as long as I can make the valuation work with a fairly sensible required rate of return, that’s good enough for me. It doesn’t matter so much to me if we have it settled at 11 or 9 per cent.”
- “We look at it this way: since we are participants in the stock market, it fulfils the required return that we have. Otherwise we would put everything into bonds. The allocation of money between equities and bonds and real estate is controlled by the yield requirement that [our institution] has for the different types of investments, [but] when we [in the equities department] come in, that allocation decision has already been made.”*

In turn, the perceived lack of alternatives, and the lighter emphasis on required rates of return were linked to a lighter emphasis on intrinsic valuation. If equities were the only alternative, then equities had to be bought even if many equities were considered overvalued according to intrinsic valuation. This appeared to be a basic reason why relative valuation was considered to be such a useful valuation approach (see also section 5.4). The following quotation, provided by one of the interviewees, illustrates this:

“We must have our money in [equities] regardless of whether we were calculating [with] required rates of return and find that all equities are too expensive. This line of argument, when you discuss a specific stock, ‘Is it worth buying?’. Yes, what is the interest on the five-year bond, what is our risk premium, wow justified price, it is way below the price! Then you have a little bit missed the point for a fund manager, that we should find the best [alternative] given the basket at our disposal. But we can’t buy anything else and we don’t want any kind of liquidity lying around waiting for lower prices. It’s easy to end up a little wrong, if you just base yourself on this particular share, what is it worth.”*

5.6.2 Discussion of results

Even if a lack of investment alternatives exists, and many equities appear overvalued according to intrinsic valuations, it would appear that an intrinsic valuation approach could still be useful in providing a list of the most and least overvalued equities. However, in the case companies with internal analysts, who competed to “sell” their companies/shares to the portfolio managers, the argument that one share was the less overvalued than another was unlikely to be a very good selling point. When communicating with customers, fund retailers or media, it would also be difficult to promote the least overvalued stock. From this perspective, relative valuation, in my view, might lead to a more positive framing of the analysis.

5.6.3 Summary of findings and prior research feedback

The findings presented in this section could be summarised as follows:

The perceived lack of investment alternatives influenced the development of fundamental opinions in that it reduced the use of required rates of return and intrinsic valuation in favour of the use of relative valuation.

To my knowledge, the impact of alternative availability on the development of fundamental opinions has not been discussed in prior empirical studies at the disaggregated level (see also section 6.4).

6 Restricting and reinforcing factors

6.1 Basic results

6.1.1 Fundamental opinions, investor contexts and market premises

All the reasons for the institutional investors' equity investment actions could be traced to the investment object, the stock market, and the institutional investor as such. The basic factors that influenced the institutions' equity investment actions were fundamental opinions about the investment objects, the institutional investor's context (contextual premises) and the stock market premises (see figure 6.1). These findings are based on the inductive analysis of the 579 investment decisions referred to in section 3.4 (see also chapter 4).

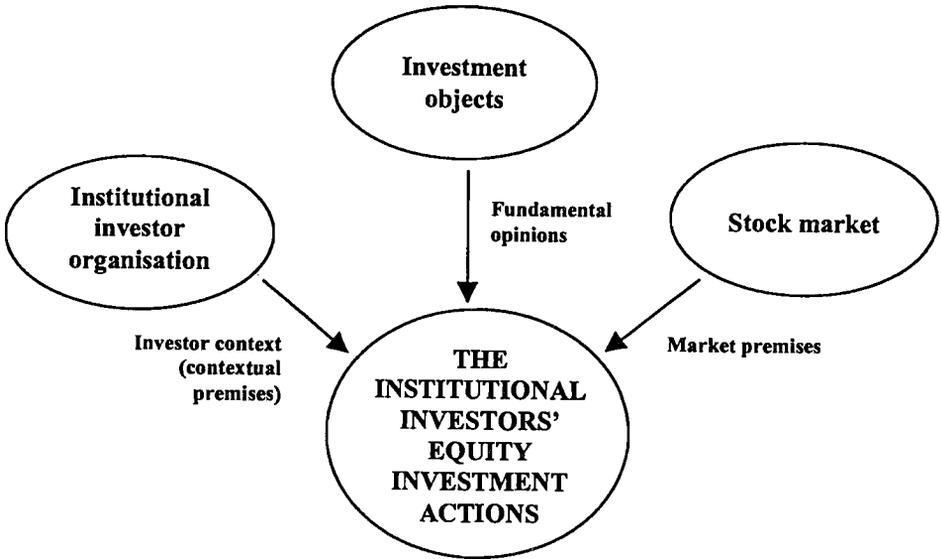


Figure 6.1 An illustration of the basic factors that influenced the institutional investors' equity investment actions

Fundamental opinions about the investment objects played an important role in determining investor action. Empirical results related to fundamental opinions were presented in chapter 5. The concept of “market premises” aims to capture how the institutional investor’s observations of the stock market influenced its investment actions: share price fluctuations often initiated investment decision-making processes; the liquidity (trading volumes) of different stocks was important in that, for instance, low liquidity restricted investor action; the institutional investors took into account the actual and expected investment actions of other investors. Finally, contextual premises relating to each particular investor also influenced investment actions. Important contextual premises included portfolio strategy, organisation, legal conditions and financial conditions (external cash flows).

The institutions weighed their opinions of the investment object fundamentals against the restrictions and opportunities they observed on the stock market, and what their specific investor contexts allowed them to do. What characterised the market premises and the contextual premises was that they often restricted or reinforced action in line with the fundamental opinion. The degree of restriction/reinforcement ranged from no impact at all (the fundamental opinion alone was decisive for action), to situations where fundamental opinions had virtually no impact at all on investment actions. When several contextual premises and market premises were critical for an investment decision, the situation could become so complex that very little room was left for fundamental opinions. The contextual premises and market premises could also lead to action being postponed (time lags).

The opportunities and restrictions on the stock market tended to vary more over time than the institutional investors’ fundamental opinions. With respect to contextual premises, the institutional investors’ financial conditions and portfolio strategies varied more over time compared with organisational structure and legal conditions. The investment decision-making processes were often initiated by changes in the market premises, such as observations of sudden share price changes or increased availability of less liquid stocks. Another common initiating factor was a change in fundamental opinions. A third initiating factor was a change in the institution’s own financial conditions. That is, external cash flows originating from the institutional inves-

tors' principals (e.g., fund savers, insurance holders) led to considerations regarding whether more equities needed to be bought or sold.

Empirical results concerning how the restricting and reinforcing factors worked in more detail are presented in sections 6.2 (market premises) and 6.3 (contextual premises). The impact of investment alternative availability on equity investment actions is dealt with separately in section 6.4; time lags are examined in chapter 9. Section 6.5 includes empirical results concerning possible explanations for the difference in contextual premises across the case companies.

6.1.2 Summary of findings

The findings presented in this section could be summarised as follows:

1. The effects of fundamental opinions on the investor's actions depended to a large extent on the prevailing market premises and investors' contextual premises, such as their own financial conditions, portfolio strategy, organisational structure and legal conditions.
2. These other factors restricted or reinforced the effects of the fundamental opinions on investment actions.
3. These other factors meant that fundamental opinions could have full impact, delayed impact, reduced impact, or virtually no impact at all on investment actions.
4. When a number of different restricting/reinforcing factors were all important to the decision, the situation could become so complex that very little room was left for fundamental opinions.
5. Fundamental opinions were more stable over time than market premises. Certain contextual premises, such as organisational structure and legal conditions, were more stable over time, while others, such as the investor's own financial conditions and portfolio strategy, varied more over time.

6. The institutional investors' decision-making processes were often initiated by changes in fundamental opinions or changes in market premises, and sometimes by changes in the institutions' own financial conditions.

6.1.3 Comparison with prior research

Prior empirical studies at the disaggregated level have not focused explicitly on the reasons for institutional investors' real-world investment actions.

However, several organisational studies include observations that could be linked to market premises and contextual premises. In Gniewosz's (1990) description of what key aspects internal analysts focused on when providing investment recommendations to their portfolio managers (see section 2.1.1), points 2 and 4 indicate that the studied institutional investor was rather attentive to stock-market-specific aspects, not necessarily linked to the underlying company. At the end of the article, Gniewosz also makes the following remark (*ibid*, p 229):

“Actual investment decisions are at times made on criteria other than those outlined above. Two examples...A disinvestment recommendation was not acted upon because of the business which flowed from the investee company to the investor. In another case a disinvestment recommendation was not acted upon for ‘personal’ reasons at a senior level.”

Both examples in this quotation would have been classified as contextual premises if they had been observed in the present study. Finn's (1981) finding that an institutional investor had lost 6.5% potential excess returns due to what appeared to be lengthy internal routines, also seems linked to contextual premises. Finally, the questionnaire study by Schwartz and Steil (1996) indicated that, to some extent, motives linked to the investor, rather than to the quoted company, were quite important (see section 2.3.1).

At the aggregate level, some empirical share price research points at explanatory factors other than company fundamentals. Runsten (1998) reported that expected residual returns (based on residual income) was a significant explanatory variable for the level of share prices, but that the explanatory power was low during business cycle booms and high during recessions, suggesting that share prices might be detached from fundamentals during boom periods (*ibid*, pp 222–223, 291). With respect to share price

changes, Runsten (1998) suggests that in addition to firm-specific aspects, other aspects could be expected to have an impact on price changes in the short run. In behavioural finance literature, phenomena such as herding and investor sentiments could perhaps be seen as being linked to market premises and contextual premises. Some of the behavioural finance studies actually make links to deviations from fundamentals. Lee *et al* (1991) suggest that investor sentiments give rise to non-fundamental risks on the stock market (see section 2.6.4), and some of the studies reviewed by Berg *et al* (1995) indicate the possibility of systematic departures from intrinsic values (see section 2.6.3). However, the main focus in behavioural finance research is on deviations from economic rationality, not deviations from fundamentals, and the former was not addressed in the present study.

Initiation of real-world investment actions has received little attention in prior research. Forsgårdh and Herten (1975) discussed the initiation of equity investment decision-making processes on the basis of a review of behavioural research. In their view, it is the specific combination of information characteristics and investor characteristics that is decisive for whether such a decision-making process will begin or not. The results in the present study do not contradict this description, and provide some further specification of the initiating factors.

6.2 The impact of market premises on investment action

Market premises refer to observations of share prices, trading volumes (stock liquidity) and other investors' investment actions. The market premises either restricted or reinforced action in accordance with the investors' fundamental opinions about the investment objects. The following quotation, regarding a series of share purchases in the car safety company Autoliv, is representative of how the institutional investors reasoned with respect to the impact of market premises on investment decisions.

“THIS IS AT THE BEGINNING OF 95, YOU DON'T REMEMBER THE BACKGROUND TO THAT? Continued purchases [in Autoliv], no, there was a continued positive attitude towards the company. But, it's not only a matter of de-

ciding that things look good, that you should buy. It is also very much a matter of what kind of opportunities emerges in the market. There is a lot that is coincidental, that now there is material and then you decide to take in, or this time the price goes down a lot and then you get an opportunity to buy a smaller block. IS IT USUALLY SO THAT THE PORTFOLIO MANAGER COMES AND ASKS YOU FIRST ABOUT THE PRICE LEVEL FOR EXAMPLE? No, no, we have an opinion to be sure. Then we have formal reviews, meetings and reporting with a certain periodicity. Then we have reconciliation a couple of times per day, when you go in and talk a little and check out what's on the market. IS IT UNUSUAL THAT YOU HAVE DECISIONS LIKE 'NOW WE SHALL BUY THIS', 'NOW WE SHALL SELL THIS'? No, it's clear that you make the decisions, but it's not like you decide that now we will buy and it should take place over a period of five days. Instead it can take place over a longer period of time and then be dependent on what's happening in the world around us and what your opportunities in the market are and it's the manager that gets a feeling for that.”*

6.2.1 Share price changes

Short-term share price changes often initiated investment decision-making processes. A share price change in the “right” direction could become an opportunity to buy or sell, while a share price change in the “wrong” direction could put a check on investment action. Similarly, the absence of an expected price change in response to a particular piece of information could be interpreted as an opportunity for a buy or sell decision. The impact of share price changes on investment actions is illustrated by one of the case companies' sales of stocks in SSAB (steel) and MoDo (forestry). On the basis of fundamental opinions, the case company had decided to sell MoDo and SSAB, but the timing was affected by short-term share price changes:

“If a very good [financial] report is published, which we think is good, and nothing happens to the share's market price, then we may buy. Or it can also be the movements before the report, because there has obviously been a trend that several companies have gone up before the report and then even if [the report] is very good the price goes down. Then we obviously try to adapt a little, if we see something like that. If we are satisfied with the price and the market is on the way up, we may sell before the report, if we now have noticed that there is such a tendency. This, for instance, is what we did when we sold SSAB. We had then decided that we were going to sell and then when we saw that before the report they went up we seized the opportunity (March 1995). [With regard to] MoDo, we saw to it that we were out before the report, despite the fact that we knew...or knew, but that it was believed that it would be a good report.”*

Short-term share price changes appeared to be particularly important for the initiation of a priori short-term investments and smaller investment decisions (see section 7.3). However, large a priori long-term investment decisions were not often initiated by short-term share price changes. No empirical observations in the transaction lists indicated a systematic use of price changes as such to guide investment decisions (technical analysis).¹

6.2.2 Share liquidity

Low liquidity was most often a restriction when an institutional investor wanted to buy or sell equities. However, on occasions when less liquid shares were offered in larger blocks, investors saw this as an opportunity to buy or sell. The extent to which low liquidity was a restriction depended both on the particular share's liquidity and on the size of the institutional investor. In the largest case companies, only Astra, Ericsson and Volvo were regarded as liquid enough to cope with larger portfolio changes over a short period of time without price effects. Accordingly, liquidity restrictions were referred to most often by the two largest case companies, for whom even medium-sized transactions in many stocks on the "most traded" list at the Stockholm Stock Exchange could have significant price effects, because of the large amounts involved. Liquidity appeared to become particularly important during turbulent periods when the institutional investors wanted to make quick changes (see also section 6.3.2). One of the portfolio managers described this as follows:

"Then it has been a matter of selling in those shares where we can sell quite a bit in order to raise cash. It has been guided by that. And this we see quite often; when the trading volume in the market declines, Astra and Ericsson often account for half of the trading volume. They have then been the most liquid and then it has been easiest to act in those issues."*

In several observations, fundamental opinions about companies/equities formed the basis for buy decisions, but due to low share liquidity, the buying had to be postponed until large blocks of shares came up for sale. Also, on a few occasions, the availability of large blocks of less liquid shares was observed to initiate investment action. With regard to more liquid stocks, a

¹ One interviewee said he used technical analysis as a complement to fundamental analysis, but he could not give any example of a decision where such techniques had had an impact.

common trading strategy was to buy or sell small amounts over a long period of time (see also section 8.7.1). The following describes an investment decision involving larger blocks of shares.

One of the case companies observed that large blocks of Lundberg shares (Swedish real estate company) were for sale. This observation initiated a decision-making process where the institution considered its company fundamental opinion about Lundberg, and then decided to buy. This happened quickly, because since Lundberg was a less liquid stock, it was important to seize the opportunity when there were shares for sale. One of the interviewees described what happened as follows:

“The initiative in this case came from one of our traders. He knew that there were blocks for sale, which is unusual in that particular share. It is a rather illiquid share, so if one wants, one has to buy them when they are available. Then we went on and talked about levels and he then felt that at this 70 level, it looks good and I agreed. We discussed a little bit what the company looked like and came to the conclusion that we can understand the company, the value and the risk in the company. There are shares at 70, yes then we try to grab them; it wasn’t more complicated than that.”*

In this particular example, no contextual premises existed that imposed any decisive restriction on investment action (e.g., problems regarding financing or portfolio strategy requirements).

6.2.3 Investment actions of other investors

A third type of market premises concerned the observed and expected investment actions of other investors.

Index thinking

One common way of being influenced by the investment actions of other investors is captured by the term “index thinking”. That is, buying and selling equities on the basis of their weights in an index (e.g., the Stockholm Stock Exchange General Index). If many investors liked, or disliked, a particular stock (or type of stock), this affected the development of the index weights, which in turn affected the case companies. In a few observations, a change in the stocks that constituted the index led to the expectation that

other investors would adjust to this, and this in turn affected the investors' own investment decisions.

Four of the case companies made more systematic use of the index weights as a benchmarks when they selected which stocks to invest in, and how much to invest in each stock. If they felt very uncertain about whether a stock would develop well or badly, holding the index weight was the basic alternative for these case companies. This is illustrated by the following example. One of these case companies felt very uncertain about how the Ericsson stock would develop. The stock was very volatile, and the case company expected these high share price fluctuations to continue in the future; it had a positive long-term view on Ericsson as a company, but in the short run it thought that the valuation was very high. In addition, it was afraid that Ericsson would announce negative surprises regarding cost development since this had happened in earlier years. This reasoning is also illustrated in the words of one of the interviewees:

“Many analyses and assessments were made during 93 and also here during 94, and we have seen how difficult it is to value that company. We have seen how unexpected cost increases sometimes come, particularly last autumn, which management absolutely did not warn of beforehand, and then you end up not daring to deviate too much from index.”*

For this reason, the case company decided to stay close to the index weight. In this particular case, holding the index weight implied a holding of Ericsson stocks worth several billion Swedish kronor.

Two of the four index-oriented case companies could be characterised as highly index-oriented. This meant that all investment decisions were expressed in terms such as “buying index weight”, “overweight” and “underweight”, and that expectations were expressed in terms such as “having a neutral attitude”, “outperformance” and “underperformance”. These case companies typically also held stocks in companies about which they had negative fundamental opinions. This is illustrated by the following quotation concerning investment decisions regarding the gas company AGA:

“YOU BOUGHT [X] AGA SHARES ON 16 NOVEMBER AT THE 69 KRONOR LEVEL AND THEN AN ADDITIONAL [Y] SHARES AT 78...? We had a very low weight in AGA at that time compared to index. It was one of the major index deviations we had last year and hence one of the biggest risks. And if I remember correctly there were signals during the autumn to the effect that AGA’s profits were on their way up and expectations were raised somewhat for the future. [The decision] was not an expression of such an enormously positive view of AGA, but more of a transition from negative to neutral, like.”*

The other four case companies were less index-oriented in that they were less guided by index weights when they selected which stocks to invest in, and how much to invest in each stock. However, they later compared their own performance with a benchmark index, and looked for reasons for why their performance deviated from the index.

Several possible reasons for the role of index weights in the investment decision-making are discussed in sections 6.5, 8.5 and 8.6.2.

Particular investors’ behaviour

The observed and expected investment actions of particular investors, or particular investor groups, could also affect an investor’s own behaviour. Most of these empirical observations concerned the actual and expected investment actions of foreign investors; a few observations concerned other Swedish institutional investors’ investment actions. Furthermore, when the actions of foreign investors, or particular Swedish institutions, influenced the investor’s own investment decisions, the tendency was often to adjust to the trend. One example of this was the impact that foreign investors’ actual and expected investment actions in pharmaceutical stocks had on two of the institutional investors in the Astra cases described in chapter 4. A few observations were made of institutional investors going against the opinions of other investors. An example of this concerned one of the institutional investors who increased its holding of Asea during the last few months of 1994. One reason for these buys was that the portfolio manager had gradually developed a more positive fundamental opinion about ABB/Asea. This change in fundamental opinion was primarily based on external analyst reports, in particular an analysis written by Warburg (Hägglöf & Ponsbach) in the third quarter of 1994. A second reason for the buys concerned the expected and observed investment actions of other institutional investors:

“Another [reason] is that Asea is one of those shares that has been rejected by institutional investors for a couple of years now. I know that the majority of managers have been underweighted and most analysts have been negative towards the stock. AND THAT IS PART OF YOUR IMAGE TOO? This is a part and the longer I have worked in the industry, the more I have caught myself taking it into account. There is some kind of contrarian approach, which appeals to me somewhat. WHAT DO YOU MEAN? That you actually go against the market all the time. SO IF YOU KNOW THAT THEY ARE UNDERWEIGHTED, THAT WOULD BE A REASON FOR YOU? Yes, that most analysts have a negative attitude towards the stock, then the probability is greater that the stock de facto is undervalued relative to future profits.”*

In this case, the expected and observed investment actions of other institutional investors actually reinforced action in accordance with the fundamental opinion. In addition to the improved fundamental opinion, “going against the market” was seen as an argument for buying more Asea stocks.

6.2.4 Summary of findings

The findings presented in this section could be summarised as follows:

1. Three types of market premises that restricted or reinforced the effects of fundamental opinions were actual or expected share price changes in the short-term perspective, share liquidity, and the investment actions of other investors.
2. Share price development in the short-term perspective initiated or put a check on decision courses in line with fundamental opinions.
3. For several institutional investors, the stocks’ index weights had a significant impact on their investment decisions.
4. Institutional investors were occasionally seen to go against other investors’ opinions, but they more often acted in accordance with them.

6.2.5 Comparison with prior research

At the disaggregated level, a few studies indicate effects of market premises on institutional investors’ investment actions (see section 6.1.3). At the aggregate level, much of the behavioural finance literature concerns the extent

to which investors are affected by other investors' behaviour. This is particularly emphasised in the herding literature and in investor sentiment studies (see section 2.6.3 and 2.6.4). That investors do not behave independently of each other is also an important basis for those who argue that contrarian strategies can generate abnormal returns (see section 2.6.5). The empirical results in the present study indicate that investors on the Swedish stock market do not act independently of each other (see also section 5.5).

6.3 The impact of contextual premises on investment action

Each institutional investor made its decisions in a particular context, and these contextual premises affected its investment actions. Important contextual premises included portfolio strategy, organisation, legal conditions and financial conditions (external cash flows). In many empirical observations, their effects on investment actions were strong. The following quotation concerning one of the case companies' sales of Ericsson shares illustrates this.

“Normally, we wouldn't touch these shares if we didn't have to. Because sometimes...the door flies open and: ‘You must sell for [X] million!’. Then it's like, should I [quit]? SITUATIONS LIKE THAT HAPPEN? Yes, there actually have [been such situations]. I could imagine that when one goes in and makes a study in this way, you learn that there is a lot of action where the sole objective is to raise cash.”*

In this particular case, the company had to sell equities in order to comply with certain legal rules despite a positive fundamental opinion of Ericsson (see section 6.3.1).

The contextual premises differed in the following dimensions: whether or not the premise was given from the outside, stability over time, and the extent to which the premise was investor-specific.

Legal conditions could be classified as an outside contextual premise, relatively stable over time, and specific to particular groups of institutional investors. The investment company and the research foundation had few legal

restrictions, while the insurance companies and the fund management companies had more legal restrictions (see section 6.3.1).

The institutional investors' financial conditions were investor-specific, in that each institution's principals could affect the amount of money that the institution was to manage (see section 6.5). The financial conditions could be classified as an outside contextual premise, since the institutional investor did not fully control the external inflows and outflows of money. Compared with legal conditions, financial conditions were more variable over time.

Each institutional investor organisation had its own characteristics with regard to the organisational structure, and how the investment decision-making processes worked. These characteristics depended on, for example, the character of the institutional investor's stakeholder relations (owners, customers, staff), the character of the institutional investor's operations (money management, insurance, research funding etc), and how successful the operations and investments had been in the past. The contextual premises linked to the organisation were not given from the outside, and they appeared to be relatively stable over time. Organisational aspects could influence the investment decision-making, but usually in less manifest ways. In many cases, the effects could be described in terms of time lags (see chapter 9).

Each institutional investor had its own portfolio strategies concerning stock type,² asset allocation and geographical allocation. It also had trading strategies for how to implement an investment decision on the stock market (in large blocks or a little at a time). Fundamental opinions were important inputs to the portfolio strategies, but they also took into account the investor-specific set of internal rules and policies. Much of the latter concerned the availability of investment alternatives. For example, there could be certain maximum portfolio weights for particular stocks. Another area was ownership policy, where typically becoming too large an owner was unde-

² Portfolio strategies were often expressed in terms of industries or stock types (e.g., business-cycle sensitive stocks, non-business-cycle-sensitive (stable) stocks, interest-sensitive stocks and growth stocks).

sirable, because exit then became more difficult. The portfolio strategies could also be expressed in terms of having a concentrated portfolio or in terms of having a low level of liquidity. The institutional investors' portfolio strategies were not outside contextual premises, and they varied over time.

Overall, the outside contextual premises imposed more severe restrictions than the contextual premises that were not given from the outside. For example, laws had to be followed, while the institutional investor itself was free to change its portfolio strategies. However, the highest restrictions seemed to result from a combination of different contextual premises. For example, a portfolio strategy that involved always being fully invested in equities, in combination with external cash inflows, could lead to purchases of stocks that were actually considered to be fundamentally overvalued.

6.3.1 Legal conditions

Numerous observations were made of institutional investors who could not act fully in accordance with their fundamental opinion due to restrictions resulting from legal conditions.³ Almost all of these observations concerned life insurance companies and fund management companies. Their investment activities were strictly regulated, and closely followed up by the Swedish Financial Supervisory Authority (Finansinspektionen). The common denominator in these observations was that the institutional investor was acting close to a legal limit of some kind.

The overall purpose of the legal conditions for life insurance companies is to protect the insured. The rules that applied during the period of this study stipulated that the life insurance company's formal commitments to the insured (the insurance debt) should be fully covered by investments in risk-free assets.⁴ Only the remaining part of the balance sheet's financing side (the consolidation capital and the premium reserve) could be invested in "risky" assets (equities, property). During the Swedish financial crisis of the

³ No complete description of the legal premises for different types of institutions is provided in this thesis. Instead, the presentation of results focuses on the legal conditions that were observed to affect the investment actions.

⁴ See Hörngren and Viotti (1994, chapter 9) for a more detailed description of the laws regulating Swedish life insurance companies' investments.

early 1990s, the value of risky assets decreased materially (property, in particular), but there was not a corresponding decrease in the insurance debts. This meant, in general, that the legal maximum portfolio weights of risky assets were lowered during the crisis and that the Swedish life insurance companies moved closer to their maximum limits. A lower portfolio weight of equities could lead to a lower return on assets since the expected long-term return is higher for equities than for interest-bearing securities. Since the return on assets is important for life insurance companies in competing for customers, it could be an advantage to have a higher portfolio weight of equities than the competitors, i.e., to move closer to the legal maximum limit of risky assets.

This study observed that, at times, taking full advantage of the room for equity investments according to the legal conditions (i.e., the legal maximum limit of risky assets) was more important than the institutions' fundamental opinions of what would be an optimal mix of equities and other types of assets. Furthermore, when the institutions were close to their legal maximum portfolio weights for risky assets, they also became sensitive to interest rate changes. One interviewee described how this worked during a certain period:

“What happened was that the interest rate started to rise sharply and then we suddenly became very squeezed. Every percentage point costs [X] million of the stock portfolio, because the bond portfolio declines in value. We had a buffer so everything went very well when the interest rate rose 1 per cent, 2 per cent, but then we became forced to sell stocks. And that has controlled the entire investment activity since last spring. We haven't been able to act rationally in the market because we have been under pressure. From time to time we have had to check every day more or less.”*

In this case, the interest rates increased, which made the value of the bond portfolio decrease, and then the room for equities decreased.⁵ Consequently, equities had to be sold. In these situations, the legal restriction made it impossible to act fully in accordance with fundamental opinions. This also worked the other way around, so that when interest rates decreased, equities

⁵ The insurance debt was not immediately reduced as the interest rates increased.

had to be purchased in order to quickly get back close to the legal limit (see also section 7.1.2). This was observed in some cases.

Both life insurance companies and non-life insurance companies were not legally allowed shareholdings in a company that exceed five per cent of the votes. There was no empirical observation of this rule restricting action, although Swedish insurance companies typically had some shareholdings close to this limit.

The unit trusts' investment decisions were also affected by the legal conditions. Firstly, the unit trusts were not allowed a portfolio weight exceeding ten per cent in particular quoted companies. Secondly, in all unit trusts, except Allemansfonder, the total of the portfolio holdings exceeding five per cent of the net asset value should not exceed 40 per cent of the net asset value.⁶ This 5–40 rule implied that certain numerical combinations had to be followed for the largest holdings. For example, five stocks each with eight per cent portfolio weight or 9–9–7–7–7 or 10–10–10–10. In one of the case companies, the 5–40 rule restricted the possibility of acting fully in accordance with the fundamental opinions. The following quotation from one of the interviewees illustrates this:

“Ericsson was a 10 per cent holding there or something and we swapped that for Astra. NOW I DIDN'T QUITE UNDERSTAND. Well, I believe that with regard

⁶ At the time of the study, this was formulated as follows in the Swedish Security Fund Law (Lag om värdepappersfonder, SFS 1990:1114). “§19 In a security fund, stock exchange securities with the same issuer may be included at the maximum amount of either (1) 5 per cent of the fund's value or (2) 10 per cent of the fund's value, if the total value of such assets is maximally 40 per cent of the fund's value. If a security fund after the acquisition come to exceed any of the limits in this paragraph, stock exchange securities should be sold to the corresponding extent as soon as this can best be done, where the unit trust holders' interests should be regarded to a reasonable extent.” (translated from Swedish and shortened). This paragraph applied to all security funds except for Allemansfonder (SFS 1990:1116), whose conditions were formulated as follows: “In the fund, stock exchange securities with the same issuer may be included at the maximum amount of 10 per cent of the fund's value...If any of these limits are exceeded, stock exchange securities should be sold to the corresponding extent, as soon as this can best be done, where the unit trust holders' interests should be regarded to a reasonable extent.” (translated from Swedish and shortened). It should also be added that Allmansfonder were only allowed to invest in stocks quoted on the Stockholm Stock Exchange.

to these holdings exceeding 5 per cent, which are not allowed to be more than 40 per cent, there we weighted up Astra at the expense of Ericsson quite a bit. In Astra we may have had a strategy from the beginning that we wanted to have 4–5 per cent [portfolio weight], but then it was understood during the period that Astra is a very good stock, so perhaps instead we should have 9 per cent Astra. In other words weight up Astra and weight down something else which has been [among] these holdings over 5 per cent.”*

The quotation indicates that if the 40 per cent limit had not been there, this case company might have chosen portfolio weights above five per cent for both Ericsson and Astra. In fact, this case company acted differently in this respect in the unit trusts that did not have to follow the 5–40 rule. The quotation also indicates that the decisions regarding the portfolio weights for different stocks were influenced by the possible numerical combinations that made full use of the 40 per cent.

The legal conditions for unit trusts could also have the following effect. If a fund had chosen to keep very close to the legal limits with respect to some stocks, more favourable share price changes in these stocks compared with other stocks in the portfolio could make the fund exceed the 10 per cent limit or the 40 per cent limit. When this occurred, the fund was forced to sell some of these stocks. According to the law, this did not have to be done immediately, but the funds seemed anxious to keep within the limits. There were several observations of forced sales resulting from these excesses. Such sales were referred to as “limit measures” by the interviewees.

6.3.2 Financial conditions

External inflows and outflows of cash could cause the institutional investors to deviate from their fundamental opinions. Most of the institutional investors had, on average, external inflows of cash over time. In most of the insurance companies’ portfolios, the yearly premiums exceeded the cash paid out to policyholders each year, and their investment budgets therefore included a certain amount of money that was to be net invested each quarter. This could put a certain amount of pressure on the equity departments to buy equities. The unit trusts typically had net inflows of cash from their customers, and from time to time they also experienced pressure to buy. The

research foundation occasionally received more funds to manage, while this was not the case for the investment company.

Several observations were made where a pressure to buy caused by external cash inflows contributed to deviations from fundamental opinions. One of the case companies had, for example, continuous positive net cash flows from its insurance operations, and also a portfolio strategy to increase its portfolio weight of real assets (i.e., property and equities). The interaction of these two contextual premises meant that the equity department faced a continuous pressure to buy. This was apparent in its decision to buy shares in Procordia (a Swedish conglomerate) in late 1993. One of the interviewees described the reasons for buying as follows:

”When we added more Procordia shares to the portfolio, I wasn’t so positive, because I have a long-term scenario which indicated that Procordia wasn’t going to go up, and there was no reason to buy until the Government sale was completely finished. On the other hand, in relation to many other shares that seemed to have a high valuation, we felt that the falling risk in Procordia wasn’t so high, if we in any case were to invest in the Swedish portfolio.”*

This quotation illustrates that the pressure to buy stocks, due to continuous cash inflows and a portfolio strategy to increase the portfolio weight of real assets, could make the institutional investor deviate from its fundamental opinions. Another example concerned one of the fund management companies, which had a unit trust with large external money inflows. This unit trust’s strategy was not to increase liquidity as money came in, but to buy more stocks more or less immediately. Finally, it had quite a stable “model portfolio” containing certain stocks about which it had positive fundamental opinions. Asea was one of the stocks in this portfolio, and the unit trust made successive buys in Asea as money came in. One interviewee explained this as follows:

“This is a fund that has grown and it has a portfolio structure with 2–3–4 percent Asea...THERE WAS NO ALTERNATIVE? So long as we don’t find a better alternative, we will keep Asea and since the funds have grown very fast, some Asea has been bought.”*

The unit trust bought more of all the stocks in their model portfolio as soon as money came in, and they continued to do so despite material share price fluctuations. This way of dealing with the inflows meant that the unit trust continuously maintained the portfolio weights they perceived to be right in the long run from a fundamental opinion point of view. However, it appears strange that the unit trust could be so insensitive to the share price changes of particular stocks. A third example concerned a case company with a unit trust that had large money inflows. One of their interviewees described the situation as follows:

“We have then had virtually uninterrupted inflows, and that has been a problem I can say. CAN YOU EXPLAIN? A pleasant problem; but if the fund is small from the start and one constantly gets new inflows, in principle you then must make a large number of small deals, if you want to maintain a portfolio mix that is the same over time. If 100,000 kronor comes in or 500,000 kronor one day, and you don't want to alter your portfolio structure, in principle you have to buy all the shares you have in your portfolio with this money the same day you get it in. And that is impossible. In practice, the outcome is that you simply have a buffer. There will be spurts of buying and you weight up. You see to it that you have enough capital so that there is a reasonable transaction cost on the deal that you do.”*

This case company also had a model portfolio based on company/industry fundamental opinions, but it built up a liquidity buffer and then acted to take advantage of the short-term share price fluctuations. The fact that purchases were rather infrequent caused quite large variations over time in the portfolio weights of different stocks. In many cases, these portfolio weight variations did not reflect changes in the fundamental opinions regarding the stocks, and in that sense the behaviour was not fully in line with the fundamental opinions. On the other hand, this case company had more freedom to refrain from buying when prices were perceived to be particularly high.

External outflows of cash during extended periods of time were much less common in the empirical data. The main observation concerned large amounts of money withdrawn during a short period of time, which forced the case company concerned to sell equities. Figure 6.2 shows the distribution of the total value of equities sold across the seven weeks in which the outflows were very high.

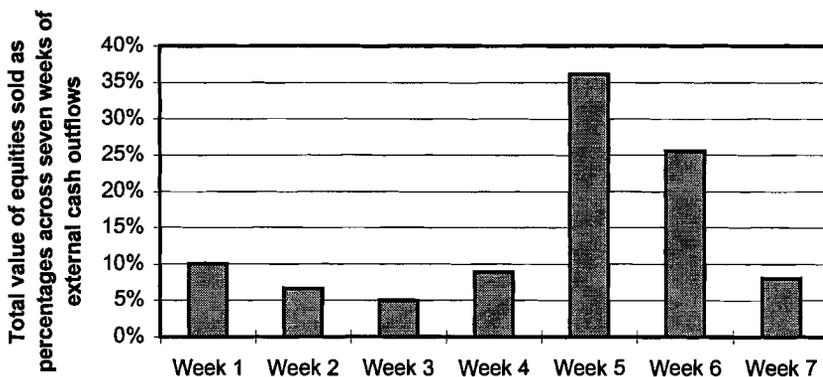


Figure 6.2 Distribution of the value of equities sold by one case company during a period of withdrawals

The case company had no “over-liquidity”, and was therefore forced to sell. At the end of the period in figure 6.2, the situation became somewhat extreme, as illustrated by the following quotations from two of the interviewees:

- “You can say that the investment strategy has then been completely controlled by redemption. A continuous redemption and an expected redemption, which accelerated towards the end of the period and then was more than we had counted on.”*
- “Towards the end it accelerated to a point where we were forced to adapt the selling rate directly to each day’s reports about how much redemption there had been. Since you then have a three-day settlement period, there was a very thin margin there for a while.”*

An interesting issue is how this increased pressure to sell affected the sales pattern over time. The case company’s preferred selling order as the pressure to sell increased was (i) certain stocks where the fundamental opinions had deteriorated, (ii) very liquid stocks (Ericsson), (iii) quite liquid stocks, (iv) very liquid stocks that were considered buy-worthy (Astra), (v) other

stocks that were considered buy-worthy, and less liquid stocks. One of the interviewees described the way to select which shares to sell as follows:

“You could say that the entire investment strategy then was oriented towards ‘What are we going to sell?’. And then there are two principles: you can use the cheese slicer, so that you take exactly the same amount from each holding. But you can’t do that in practice because some stocks are more liquid than others and these were rather large volumes even for our stock exchange. This means that you must focus on the larger holdings, the more liquid stocks. There you then get an over-representation. Then you can say: should you go and use the cheese slicer then on the 20 most traded, or our 10 largest holdings? Well, partly. You can see here that there are certain [stocks] here that we have sold a little less of, but there are two or three that differ rather dramatically and there is then an underlying company-specific assessment.”*

This quotation illustrates that if the case company had been satisfied with the portfolio structure before the outflows started, a basic strategy could have been to sell stocks in proportion to their portfolio weight, in order to keep the portfolio structure unchanged (the cheese slicer). However, the market premises for the stocks also influenced the choice of which stocks to sell. More liquid stocks had priority over less liquid stocks. In addition, the “cheese slicer” implied that both the most and the least undervalued stocks should be sold in proportion to their portfolio weight, but this case company did not do so. The stocks perceived to be the most undervalued were not sold at all until weeks 7 and 8. Instead, during weeks 5 and 6, the case company chose to sell all their shares in two quoted companies whose positions in the portfolio had been questioned for about six months before the decision was taken. The trade-off between market premises and fundamental opinions, when facing external outflows, is illustrated by two quotations regarding the sales of Astra:

- “It is totally dependent on the fact that so much money flowed out, so we were like forced to take across the board. And Astra is one of those enormously liquid stocks, so it is easy to sell even in large quantities.”*
- “Then you see that at the end we were forced to sell that stock as well, but it is the enormous outflows we had that caused it. It’s sad but it became a good deal short-term, even if we shouldn’t act like that. But we were forced so to speak to do a short-term deal.”*

At the time of these forced sales, this case company had a very positive fundamental opinion of Astra. Still, because of its high liquidity, Astra had to be sold to a larger extent than other shares during weeks 7 and 8 of the outflows.

6.3.3 Portfolio strategy

The institutional investors' portfolio strategies concerned different alternative levels.⁷ At the asset level, the strategy could be expressed, for example, in terms of increasing the portfolio weight of real assets or in terms of always being fully invested in equities. At the company/share level, a quite common strategy was to have a concentrated portfolio (a limited number of stocks). With regard to industries (including also broader categories of companies) and geographical areas, portfolio strategies varied. At one end of the spectrum, there were case companies with quite detailed structures regarding the mix of countries and industries in the portfolio, while at the other end, there were case companies that concentrated on the stocks without specifying target portfolio weights in industry terms or in country terms.

The way in which the institutional investors formulated their portfolio strategies affected their investment decision-making, and the role of company fundamental opinions, as is evident in the following empirical example. One of the case companies had specified portfolio strategies at many different alternative levels. Firstly, it followed a detailed matrix of countries and industries, specifying, for example, that American engineering stocks should be x per cent of the portfolio and German finance stocks should be y per cent of the portfolio. This case company also made investment budgets in this way.⁸ The target portfolio weights in this matrix changed over time, primarily on the basis of changes in the fundamental opinions about industries and geographical areas. Secondly, this company had a strategy to increase the portfolio weight of equities. Thirdly, it had stable external inflows of money, and fourthly, a strategy to hold a concentrated portfolio. Taken together, this sometimes restricted the choice of particular stocks. For

⁷ This is elaborated in more detail in section 6.4.

⁸ One of the managers showed me an example of these budgets during the interview. That particular budget was a one-month budget, and it included the net investment to be made during the period, and the planned changes in industry and country weights.

example, during one period, one of its strategies was to increase the weight of telecom stocks, and in line with this it bought Ericsson shares. One interviewee gave the following comment:

“Sometimes when we want to invest, we discover that there are only a few places where we can invest. The typical example is the telecom industry, where many of the companies that look interesting have had such high valuations. The fact that we bought some [Ericsson], it could also have to do with the fact that we have a concentrated portfolio...and we get more money to invest. Then it can sometimes be difficult to find alternatives.” *

In this example, a number of factors contributed to the decision to buy more Ericsson shares even though the valuation was perceived to be high: the case company’s strategy to increase the portfolio weight of equities in the total portfolio, the strategy to increase the portfolio weight of the telecom industry in the equity portfolio, the strategy to limit the number of quoted companies (concentrated portfolio), and the fact that more external money flowed in over time. This example illustrates that portfolio strategies could contribute to decision-making processes where relatively little room was left for fundamental opinions regarding particular companies/equities, despite the portfolio strategies having been determined by the case company itself.

6.3.4 Summary of findings and prior research feedback

The findings presented in this section could be summarised as follows:

1. The outside contextual premises (i.e., legal conditions and financial conditions) often contributed to actions that were not fully in line with the fundamental opinions; internally formulated conditions could also have similar effects.
2. External cash flows played an important role in the institutional investors’ equity investment decisions. The study period was characterised by cash inflows, which put pressure on the institutions to buy.

I have not found any comparable prior studies that examine the impact of investors’ contextual premises on investment actions.

6.4 Investment alternatives

6.4.1 Basic results

All of the case companies were characterised by certain constraints regarding the investment alternatives that were available. Contextual premises, such as legal conditions and portfolio strategies, could reduce the number of investment alternatives. Furthermore, contextual premises linked to the organisation, such as the staff's competence, could affect the selection of investment alternatives.

The case companies typically described their investment alternatives in terms of four different alternative levels: asset level, geographical level, industry level,⁹ and company/stock level. They specified how many of these alternative levels that were available to them, and what alternatives that were allowed at each level (i.e., what asset types, countries/regions, industries, and companies/equities). For example, one institution might only be allowed to invest in Swedish stocks on a particular list at the Stockholm Stock Exchange, while another might be allowed to invest in many different types of assets (e.g., equities, property, interest-bearing securities) in many different countries. The structure of allowed alternatives in these dimensions will be referred to as the institutional investors' alternative structures. Below, the case companies' alternative structures are elaborated under three different headings: asset allocation, geographical allocation, and a priori reduction of Swedish equity alternatives.

Asset allocation

To varying extents, all of the case companies had the opportunity to invest in interest-bearing securities. Table 6.1 shows an overview of their portfolio weights of interest-bearing securities and liquidity during 1993 and 1994.

⁹ This level could also concern broader categories, such as business-cycle-sensitive stocks or interest-sensitive stocks.

Table 6.1 Per cent of liquidity and interest-bearing securities

	< 10%	25–55%	> 55%
1993–1994	Fund management companies' equity funds, investment company	Research foundation, one insurance company, one “mixed” fund in one of the management companies	Three insurance companies

The variation in table 6.1 could be explained as follows. The group with less than 10 per cent included the fund management companies' equity funds and the investment company, and their explicit purpose was to invest in equities. One reason for avoiding a high level of liquidity was that the institutions in this group were primarily evaluated against stock market indices (see section 6.5), and these do not include liquidity. Although this group only invested in equities, they needed cash buffers to enable some freedom of action in the short term. These institutional investors rarely had liquidity above the buffer level, but it could happen during periods when they expected equities to perform worse than interest-bearing securities in the short term or for a short period directly after large sales (e.g., in connection with bid offers).

The group with more than 55% in interest-bearing securities was made up solely of insurance companies. In this group, the institutional investors' contextual premises primarily governed the long-term allocation between different asset types, although fundamental opinions at the asset level could lead to short-term deviations from the “normal weight” of interest-bearing securities. Firstly, Swedish insurance legislation set minimum levels for the portfolio weight of interest-bearing securities, and the Swedish financial crisis of the early 1990s raised the minimum levels for interest-bearing securities for Swedish insurance companies (see section 6.3.1). Secondly, a basic rule for insurance companies is to match the asset structure to the duration of the insurance debt. In other words, non-life insurance companies should have a higher portfolio weight of interest-bearing securities (damage can happen at any time), while life insurance companies should have a lower level of interest-bearing securities since, on average, they have much more time before having to pay their policyholders. Such matching reasoning could be used to define a certain normal level of interest-bearing securi-

ties in each insurance company. Thirdly, the insurance companies had fundamental opinions at the asset level that could cause short-term deviations from the normal level. This is illustrated by the following quotation from one of the insurance companies:

“The most important thing for us is to find out what the liability side looks like and based on that, we can put together an asset portfolio with different weights. In the life portfolio, which has a very long duration, then we obviously take a lot of stocks and real assets, and in casualty (insurance) it’s exactly the opposite. There we have more bonds. What we can do then is tactical asset allocation and then perhaps it’s only a matter of a few percentage points. [This applies] especially to the weighting between equities and interest-bearing [securities]. For the purpose [of tactical asset allocation] we have macro forecasts that we do for two years ahead and quantitative methods which [give indications] 1–3 months before so to speak. Since we have meeting, once a month, we must have that perspective on these decisions.”

This quotation illustrates that tactical asset allocation based on fundamental opinions could lead to small deviations from the “normal mix”, which in turn was based on matching the assets to the character of the insurance debt.

Compared with the two groups described above, the companies in the group with 25–55% interest-bearing securities had more freedom to choose their asset mix. The insurance company in this group had performed relatively well during the Swedish financial crisis, and therefore had more freedom to choose an optimal equity portion in the portfolio according to the matching reasoning described above. Both the research foundation and the fund portfolio with a mix of equity and interest-bearing securities did not need to apply any matching reasoning with regard to the financing side of their balance sheets. For them, the asset allocation decision could be based purely on their fundamental opinions at the asset level. The “mixed” fund handled this by constructing an internal benchmark index with a certain percentage of interest-bearing securities. The research foundation placed great emphasis on the asset allocation decision, and had very few restrictions. Its main trade-off was between Swedish interest-bearing securities and equities, and its fundamental opinions here focused on its expectations regarding the development of Swedish short-term and long-term interest rates. On the basis

of these fundamental opinions, target asset portfolio weights were decided at finance committee meetings held about once a month.

Geographical allocation

Six of the case companies had foreign equities in at least one of the portfolios that were included in the study. These equity investments were typically spread across about ten different countries, the most popular being the United States, Great Britain, Germany and France. Since the late 1980s the general trend among the case companies was to increase the portfolio weight of foreign stocks, in order to lower the portfolio risk via international diversification. For the insurance companies, the starting point for international diversification was 1989, when the law prohibiting investments in foreign equities was repealed.

In addition to the international diversification argument, the choices of geographical markets, and the portfolio weights to allocate to these markets, were also affected by the institutional investors' fundamental opinions at the geographical level and their contextual premises. During the years following the Swedish currency depreciation in November 1992, all of the institutional investors developed a more positive fundamental opinion regarding Swedish equities. This development slowed down the trend towards increased international diversification. With respect to contextual premises, the following were observed to be particularly linked to geographical allocation decisions: (i) several of the interviewees referred to their own *knowledge and experience* as being important for the choice of foreign stock markets; (ii) the non-life insurance company considered in what *currency it was to pay the insurance debt*, and this affected the choice of investment currencies; (iii) one of the life insurance companies took into account where their *customers* could be expected to *consume/invest* their pensions, when making the geographical allocations.

A priori reduction of Swedish stock alternatives

At the next level, Swedish equities, empirical observations were made of direct prohibitions against certain industries, such as insurance stocks and property stocks. Furthermore, many of the case companies had the general rule of not investing in investment companies, although this rule was seldom strictly followed. However, the main ways of a priori reducing alterna-

tives at the Swedish stock level concerned size and liquidity. Internal criteria regarding these variables reduced the number of possible stock alternatives quite dramatically. Table 6.2 shows the structure of the Stockholm Stock Exchange during the period 1993–1995, in terms of firm size (market value) and stock liquidity (market turnover).

Table 6.2 Number of quoted companies with large and highly liquid stocks

	1993	1994	1995
	No. of quoted companies at year-end (%)		
A/ Market value > MSEK 1,000 at year-end <u>and</u> Market turnover > MSEK 1,000 per year	41 (21%)	60 (27%)	56 (26%)
B/ Market value < MSEK 1,000 at year-end <u>and</u> Market turnover < MSEK 1,000 per year	157 (79%)	160 (73%)	159 (74%)
Total number of quoted companies	198 (100%)	220 (100%)	215 (100%)
	1993	1994	1995
	No. of quoted companies at year-end (%)		
C/ Market value > MSEK 1,000 at year-end	75 (38%)	88 (40%)	92 (43%)
D/ Market value < MSEK 1,000 at year-end	123 (62%)	132 (60%)	123 (57%)
Total number of quoted companies	198 (100%)	220 (100%)	215 (100%)

Table 6.2 shows that only about 25 per cent of the quoted companies were both large and had highly liquid stocks during 1993–95 (category A). Five of the case companies had invested 40–60 per cent of their Swedish equity portfolios in quoted companies in category A, and three had invested more than 60 per cent in such companies.

The case companies all preferred quoted companies with large market values, investing more than 65 per cent of their Swedish equity portfolio in these companies (category C). Small quoted companies with less liquid

stocks were often low-priority investment alternatives, and some of the case companies did not consider them at all.

In particular, more index-oriented case companies (see also section 6.2.3) tended to reject small and less liquid stocks, because the development of these stocks had little influence on the development of the index. The following quotation illustrates this.

“If you compare with the composite index of the stock exchange, there is actually little reason to look at these [small caps], because it is the 16 most traded that determine the composite index. The Swedish market is such that if you are to beat the index by quite a bit, you must pick very odd stocks and then you get a weird portfolio. You probably get a high-risk portfolio. It is clear that we have to differ a little bit if we are to beat [the index], but first of all we believe that it’s a matter of choosing the right type of investment at the right time and then choosing the right sectors at the right time. The big money you obviously make by making the right choice between shares and interest-bearing securities and real estate.”*

This quotation illustrates that a higher index orientation could underlie a portfolio concentration on large companies with highly liquid stocks.

The other main reason for rejecting small stocks was linked to the size of the institutional investor. A very large institution would quite soon become a large owner in smaller companies, and the demands on being an active owner would then increase. In turn, being a large owner could make it more difficult to sell the stocks. All of the case companies avoided becoming dominating owners. However, this was not a problem for the smallest institutions in the study; they could also invest in companies with lower market values without the risk of quickly becoming a major owner. This is illustrated by the following quotation from one of these case companies:

“I follow all companies. REGARDLESS OF WHETHER THEY ARE IN THE PORTFOLIO OR NOT? Yes. There are, I suppose, some 20 [companies] which you don’t follow, which you think are uninteresting.”*

If all but 20 companies were viewed as potentially interesting investment alternatives, as suggested by this interviewee, this corresponds to about 90% of the companies that were quoted on the Stockholm Stock Exchange (see

table 6.2). This particular case company had a Swedish equity portfolio with a rather high portion of smaller stocks.

A third reason for focusing on large and liquid stocks was that these were easy to sell even in difficult situations. This was illustrated in the forced sales example in section 6.3.2. A fourth, but less common, reason, was that the large and liquid stocks were better followed on the stock exchange, and were therefore perceived as less risky investments.

6.4.2 Internal financing considerations

Internal financing considerations refer to the situation when a share was to be bought, and with neither cash nor external financing available, other shares in the portfolio had to be sold. Which shares to sell was determined by how the case company viewed its investment alternatives, and by its fundamental opinions about the companies/equities in the portfolio. The investment decisions in this context varied a great deal across case companies. Overall, the selling alternatives were chosen in three different ways. Firstly, in many observations, the institutional investors looked for internal financing alternatives among other categories of stocks. Some categories that were evaluated against each other were business-cycle-sensitive and stable stocks, and interest-sensitive and non-interest-sensitive stocks. Secondly, the institutional investors often looked for internal financing alternatives within the same category of stocks. This could lead to shifts from one company to another within the same industry. Some of these shifts seemed to be made more mechanically as the investor's own share appraisals, or the share prices, changed. Companies that were viewed as interchangeable in this way included MoDo–STORA–SCA; Atlas Copco–Sandvik–SKF; Ericsson–Nokia; and Trygg–Hansa–Skandia. The case companies also seemed to shift somewhat mechanically between direct and indirect ways of investing in particular companies. The observations here concerned ABB (bought via Asea, Brown Boveri, and Incentive), Ericsson (bought indirectly via Industrivärden), and Astra (bought indirectly via Investor). Thirdly, several observations were made of case companies with stocks that were continuously on the selling list, pending better alternatives. For example, the gas company AGA was viewed by some to be a “cash-like” share that could be held instead of cash, while waiting for a better alternative to come along.

The investment company Investor was also used in this way in some cases. These stocks became an uncontroversial internal financing source in the case companies.

6.4.3 Investment decisions with few available alternatives

For some of the studied institutional investors, Swedish equities constituted, in practice, the only relevant investment alternative. This applied to the Swedish fund management companies and to the investment company (see “asset allocation” in section 6.4.1), but to a large extent also to the insurance companies’ equity departments. Once the money had been allocated to a particular department in the investment budget, there was a certain tendency to keep this money within that department (see also section 9.1.3).

Few allowed alternatives left less room for action based on company fundamental opinions. When Swedish equities was considered to be the only alternative, and cash flowed in (out), Swedish equities would have to be bought (sold) even if they were considered to be overvalued (undervalued). Empirical examples of this were provided in section 6.3. The availability of alternatives also affected how the fundamental opinions were formed (see section 5.6).

6.4.4 Investment decisions with many available alternatives

The institutional investors who could choose investment alternatives from all four alternative levels sometimes found themselves in situations where they simultaneously had to consider market premises, contextual premises, and fundamental opinions at many different levels. These tended to be complex decision situations, where the large number of alternatives actually restricted room for action based on the company fundamental opinion. The reason for this was that matching fundamental opinions regarding assets and geographical areas with contextual premises and market premises, left little room for choosing which particular share to buy or sell. An empirical example is given below.

One year, one of the case companies decided to reallocate money from Swedish equities to foreign equities. The head of the equity department described the background of this decision as follows:

“At the beginning of the year I had made a budget for the equities department, where we would buy Swedish equities net for different reasons; particularly because the profit growth appeared to become so good. At the beginning of the year, we had as our strategy to invest [X] billion kronor, of which about half in Swedish equities and half in foreign equities. From about the first of July until the 20th of July we had a rather unwarranted and Swedish-specific run-up in the stock market. I happened to work for a few weeks in [July]. We sat down and looked at ‘how do we look then?’ Well, we have invested [Y] billion net in Swedish equities, we have a return on Swedish equities of 12 per cent so far this year. At the same time, our foreign portfolio has declined by 7–8 per cent. Is it reasonable that we should have 20 plus? Now it can, I suppose, be the right time to reinvest this billion in foreign markets.”*

The factors causing this reallocation were considerations regarding the case company’s external cash flow situation and its changed expectations regarding the Swedish stock market as a whole.¹⁰ The formal decisions to reallocate from Swedish to foreign equities were taken at different meetings at the beginning of September. The head of asset allocation described the discussions at these meetings as follows:

“The reasoning for [reallocating from Swedish to foreign equities] primarily was that we had a gradually rising need to diversify, that we always have had on an ongoing basis. The concentrated risks are in the Swedish stock market. The securities are so highly correlated that they provide no diversification. NOT EVEN BY HAVING DIFFERENT SECTORS? Yes, okay, when I say no diversification that’s not really right, but they add very, very little. We try to find the forms for gradually increasing the foreign portion all the time.”*

Given that Swedish equities worth a very large amount of money were going to be sold, the next step in the decision-making process was to decide in which companies and industries to sell. The decision was made to sell mainly Swedish pharmaceutical stocks (Astra and Pharmacia) in order to lower the overweight of this industry in the equity portfolio as a whole. One of the interviewees described this as follows:

“We performed an industry analysis of the entire stock portfolio and saw that we were more overweighted than we wanted to be in the pharmaceutical sector. It can

¹⁰ The quotation also indicates a fixation on the calendar year, probably because the case company’s investment budget was based on calendar years.

be a disadvantage to have too many market and country specialists. It is not that we weren't aware of this; naturally I have known that we have been very over-weighted in pharmaceuticals, but we have not worked systematically on sector re-allocation globally.”*

This indicates that the global overweight in pharmaceutical stocks was not due to a global positive fundamental opinion regarding the pharmaceutical industry. Instead, it was linked to a prior internal focus on particular geographical areas. Market premises also influenced the choice of stocks to sell, in that the selling amount was quite large, and therefore the selected stocks had to be liquid. This was one of the reasons for choosing Astra. Another reason for choosing Astra and Pharmacia was that large gains were to be realised. This was particularly important with regard to Pharmacia, where the shares that had been bought only a few months earlier. With regard to company fundamental opinions, one of the interviewees provided the following comments regarding Astra:

“THERE WAS NO FUNDAMENTAL NEWS OR SOME EVENT THAT HAD OCCURRED IN ADDITION TO...No...no, there wasn't, instead we were rather neutral about the valuation of Astra. There was nothing that had anything to do with the company. Instead it was a portfolio adjustment, both in terms of industry and in terms of currency.”*

This quotation clearly illustrates that this major decision to sell Astra had little to do with the fundamental opinion. With regard to Pharmacia, however, the case company had a negative fundamental opinion, and this contributed to the decision to sell.

The above example shows that for an institutional investor with many investment alternatives (in terms of assets, geographical markets, industries, and equities), more material investment decisions had to match many different aspects in terms of fundamental opinions at different levels, contextual premises, and market premises. In the end, the many restrictions could make the choice of what particular share to buy or sell rather obvious. In other words, fundamental opinions about particular companies/equities became less emphasised during the investment decision-making process.

6.4.5 Discussion of certain results

Why are certain investment alternatives rejected from the start, and not considered by decision-makers? As described in section 6.4.1, different contextual premises play an important role for the a priori restrictions of investment alternatives. An underlying explanation is perhaps that the institutions only adapt to what they perceive to be their principals' demands (see section 6.5). The task for an equity fund or an equity department is to buy equities. Asset allocation has already been taken care of by somebody else. The effects of not considering all the investment alternatives were of two kinds. Firstly, the combination of few available alternatives and external cash flows could lead to stocks considered overvalued (undervalued) being bought (sold). Secondly, few available alternatives appeared to make fundamental opinions more dependent on relative valuations, and less linked to required rates of return (see section 5.6).

It seems plausible that a reduction in investment alternatives could reduce the impact of fundamental opinions on investment decisions. It seems less plausible, however, that the impact of fundamental opinions could also be reduced when many alternatives were available. One likely explanation is that the structure of possible alternatives became too complex. The empirical observations here concerned case companies that could choose alternatives from all four alternative levels. When they needed to consider market premises, contextual premises, and fundamental opinions at many different levels (company/share, industry, geographical area, assets) at the same time, little room was left for fundamental opinions about particular companies/equities.

6.4.6 Summary of findings

The findings presented in this section could be summarised as follows:

1. Due to external demands and internal considerations, the institutional investors decided from the start which stock markets, or parts of these, they would consider as investment alternatives.
2. Typically, equity investment decisions were not made solely on the basis of opinions about individual stocks, but were decisions that con-

cerned variables on different alternative levels within a portfolio strategy.

3. Certain quoted companies were viewed as interchangeable, which meant that when shares in one of these were to be bought, there was an obvious selling alternative and vice versa. Certain companies' shares were viewed to be "cash-like", which made them obvious selling alternatives when good investment opportunities arose.
4. Few allowed alternatives, in combination with external cash flows, could significantly reduce the impact of fundamental opinions on investment actions. A large number of available alternatives sometimes also lessened the role of fundamental opinions about particular companies/equities in investment decisions.

6.4.7 Comparison with prior research

The empirically based classification of alternatives in the present study (i.e., asset level, geographical level, industry level and company/share level) corresponds with the classifications made in Gniewosz (1990) and O'Barr and Conley (1992b). However, to my knowledge, the impact on investment actions of the availability of investment alternatives has not been studied in prior empirical research.

6.5 Contextual premises: some underlying explanations

The contextual premises were found to differ across the case companies. This section includes empirical results concerning possible explanations for these differences.

All of the institutional investor organisations included in this study were financial intermediaries that handled investment risks on behalf of their principals. The money they received from their principals was to be invested in equities and other assets (see figure 6.2). The case companies evaluated the investment opportunities as such, but they also had to take their contextual premises into account. These included external cash flows from (or to)

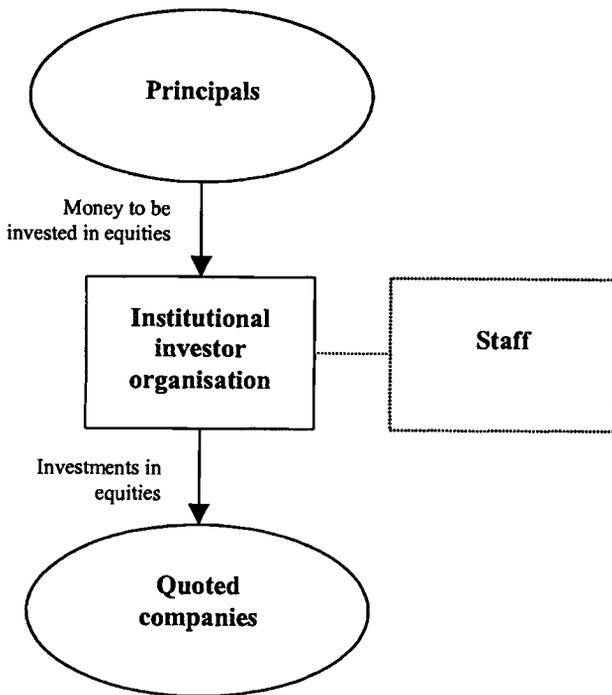


Figure 6.2 The institutional investor as a financial intermediary

their principals, the legal form of the institution, and various organisational aspects. At a more general level, these contextual premises depended on what characterised the relationship between the institutional investor organisation and its principals.

6.5.1 Characteristics of the institutional investor – principal relationship

The case companies' relationships with their principals were found to vary quite considerably. Some had clear main principals with relatively clear demands. For example, the fund management companies' main principals

were their customers. These companies competed on the open savings market, and therefore could quite easily observe the customers' preferences. The competition created a more demanding investment decision environment, and perhaps also a more short-term investment perspective. Some of the other case companies had difficulties in even defining who their main principal was, and what their demands were. In particular, this applied to the research foundation and to one of the insurance companies. As a consequence, these institutions had to formulate their own demands. This created a less demanding investment environment, and perhaps also a more long-term investment perspective. However, it could possibly also cause a biased focus.¹¹

Institutional investor goals and principals' demands

When interviewees were asked about their organisation's general goals, their typical answer was: "to achieve as good a return on investment as possible, given a certain amount of risk-taking, for those who have given us the responsibility of managing their money". This implies that the overall goal appeared to be to satisfy the principals' demands. Follow-up questions about their goals revealed that "...as good a return on investment as possible...", implying a maximisation of returns at a given risk level, was typically operationalised into level goals such as achieving an annual 4% real rate of return or beating the relevant benchmark index. This implied, in practice, aiming to achieve acceptable rather than maximum levels.

The principals, and their demands, varied across the case companies. The fund management companies were under the greatest pressure to adapt to the demands of their principals. The unit trust holders could quite easily

¹¹ In one of these case companies, one particular phenomenon could perhaps be interpreted as a biased focus in the investment decision-making. I observed that this case company made quite a number of short-term investments, and that almost all of them led to the realisation of gains. This seemed to have to do with a general aversion to realising losses (see chapter 7), but also with the way the internal reporting worked. The internal reports were very detailed, and showed the gains and losses for each selling transaction. These reports were sent to a superior finance committee, and where short-term losses appeared to trigger questions from committee members. Perhaps for this reason, the operating staff avoided realising losses because they knew that these would be examined by the finance committee. At the same time, the many short-term gains could show the finance committee that they were doing a good job.

take their business elsewhere, and consequently, the fund management companies had to compete both to win new customers and to keep old ones. In the fund management companies, the unit trust holders paid the fund management companies fees on the basis of the size of the managed funds. As a consequence, the fund management companies had strong incentives to increase their volumes in order to increase their profits. The investment company was similar to the fund management companies in that its shareholders demanded competitive money management, and if they were dissatisfied they could sell their shares whenever they chose. However, the investment company did not have the same incentive to increase its volumes. The life insurance companies (including private pension saving) were under more moderate pressure to adapt to the demands of their principals. The key difference between the life insurance companies and the fund management companies was that savers had much less freedom to withdraw money from life insurance companies or to change life insurance company. The non-life insurance company was under considerable pressure to adapt to the demands of its principals with respect to the non-life insurance products. However, the marketing of non-life insurance products did not focus on how the prepaid premiums were managed, despite the influence this had on premium levels. One of the case companies was a life insurance company for a specific group of people. Once a premium had been deposited in this company it could not be withdrawn. This case company could not affect the new inflow of money, and thus did not have to make any effort to “sell” its product. It was not even clear who the main principal was: the individual members, the group as such, or the organisations that paid the premiums. In sum, this meant that this case company had little pressure on it to adapt to demands from its principals. The same applied to the research foundation, where it was also unclear who the main principal was.

Operational investment goals

The pressure to adapt to the demands of principals had a direct impact on operational investment goals. For the case companies under significant pressure from their principals, these operational goals were to beat the index, and to beat competitors. For case companies under little pressure from their principals, beating the index played a subordinate role. Instead, these case companies had goals stated in absolute terms (i.e., return on investment), and they also gave explicit priority to achieving this goal. This was particu-

larly clear in the research foundation; it paid very little attention to the index, but carefully ensured that the donated money was not eaten up by inflation. The case companies under medium pressure from their principals with regard to money management (life insurance and non-life insurance) used a mix of absolute investment goals and goals related to index and competitors.

Business strategy and analysis orientation

The case companies under a high or medium pressure from their principals needed to formulate business strategies that could give them competitive advantages. However, these institutional investors were not just competing with each other, but also with consumption alternatives and other saving alternatives. They could compete by having the lowest fees, the best return/risk track record, a very famous portfolio manager, a well-developed system for selling the products (e.g., retail dealers, centralised advertising, personal meetings with potential customers), unique products (special types of funds), or a unique analysis competence that could lead to a superior return on investment in the future. Clearly, the analysis orientation was important here, since all of the case companies under high or medium pressure from their principals needed to communicate how they analysed equities in order to earn good returns for their principals. The analysis orientations in the different case companies were described in section 5.1.2.

The importance of pressure from principals

The characteristics of the institutional investor – principal relationship affected the conditions that the different case companies worked under. If they were under great pressure to adapt to the principals' demands, they tended to make more use of index-related and relative goals, and to feel that strong short-term performance was being demanded. The media and principals closely followed these institutional investors, and they would publicly criticise them for poor performance. This seemed to reinforce index thinking, and support the tendency to reduce risk considerations to the index dimension (see sections 6.2.3, 8.5 and 8.6.2). The increased pressure to be competitive on the savings market also made it more important for these case companies to have a clear business strategy, including an analysis orientation that could be used in their marketing. In the case companies under less pressure from principals, customers did not withdraw their money if per-

formance was below index. Only the annual performance was public information, and these institutional investors received little media attention. This created a less demanding environment, and perhaps also a more long-term investment perspective. Index-related and relative goals were less of a priority in these companies, and the analysis orientations were largely governed by the views of the particular managers.

6.5.2 Summary of findings

The findings presented in this section could be summarised as follows:

1. One basic contextual premise that influenced the institutional investors' behaviour was the degree of pressure on them to adapt to their principals' demands. Some institutions' results were directly visible to the media and to their customers, which placed them under pressure. Others, on the other hand, were able to formulate their strategies on their own terms.
2. Institutional investors under strong pressure to meet their principals' demands tended to use index-related and relative goal formulations, and to feel a demand for strong short-term performance.

6.5.3 Comparison with prior research

Brennan (1995, p 70) argues that institutional investors do not act in the best interest of their stakeholders, but to benefit the portfolio managers (see section 2.6.2). In the present study, incentives and risks from a staff point of view were not observed to play a dominant role (see section 8.7). Instead, the results point at the institutions' adaptations to their principals' demands, and at the varying degrees of pressure placed on them by their principals.

7 Different investment-decision situations

The influence of contextual and market premises on fundamental opinions varied across different investment-decision situations. Empirical results are presented under three headings: buy versus sell decisions, investment decisions of different magnitudes, and a priori short-term versus a priori long-term investment decisions.

7.1 Buy and sell decisions

The investment-decision-specific data concerned both buy decisions and sell decisions; the distribution is shown in table 7.1. These observations constitute the empirical basis for this section.

Table 7.1 A priori long-term investment decisions distributed across buy and sell decisions

	No. of investment decisions	%
A priori long-term buy decisions	311	57%
A priori long-term selling decisions	237	43%
	548	100%

The main empirical result regarding buy and sell decision situations is that fundamental opinions have more impact on buy decisions than on sell decisions. The reason for this is that contextual premises were more important in connection with sell decisions. With respect to market premises, no clear-cut difference was found between buy and sell decision situations, apart from the observation that stock liquidity was clearly a priority in connection with forced sell decision situations (see section 6.3.2).

7.1.1 Historical acquisition prices

The price paid for a share (the historical acquisition price) was an important reference point when considering sales of the same share. The historical

acquisition price could be viewed as a contextual premise that is only present in connection with sell decisions.

Most of the observations linked to historical acquisition price were cases where “realisation of a gain” was referred to as one of the reasons for selling. This was never observed to be the only reason for selling, but it appeared to be an accepted selling argument. The most common observation here was of a quick material share price increase just after a buy. In such cases, the historical acquisition price appeared to be a particularly strong argument for turning an a priori long-term investment into a short-term investment. Staff working in the institutional investor organisations also seemed to keep themselves informed about acquisition prices. The acquisition price (or unrealised gain/loss) was included in several of the transaction lists I received. The quotations below show how some of the interviewees referred to the realisation of gains.

- “It is clear that if our funds are valued according to the market every day, it can go down one day, right, so it may be nice to bring home certain profits.”*
- “Sometimes it may be that you realise profits in a company that has done well.”*
- “Perhaps it wasn’t so much that I had a negative scenario for forest companies, on the contrary, but the share price had gone up a lot and I wanted to secure a part of the profit.”*

All of the case companies were evaluated in market value terms, so the distribution across realised and unrealised returns had no bearing on performance evaluation. For the insurance companies, realising gains just before year-end appeared to be important at certain times, as a way of avoiding bottom-line losses in the legal accounts.¹ Keeping the legally reported net income positive seemed to be important in order to avoid negative media publicity, and in order to maintain good relations with the insured. Stock sales in this context seemed to have little to do with fundamental opinions.

¹ The lower of cost or market rule had to be applied in the insurance companies’ legal accounts.

Some observations also concerned the institutional investors' reluctance to realise losses. However, they were relatively few, probably because the sample of investment decisions was taken in the years following the Swedish currency depreciation in November 1992, and few Swedish stocks had a negative share price development during this period. Still, the observations that were made revealed quite a strong tendency to hold on to companies that were developing badly. Interviewees from two of the case companies explained this reluctance as follows:

- “In the short term, [acquisition cost] has an impact. I am fully aware that it is an error in thinking, but it is obvious that there is a resistance to realising losses.”*
- “I think that if we are stuck with a large holding in this way, then you think: ‘Well, we can’t really sell it at the bottom, because now it has gone down so much, so now it can’t possibly go down further’ you say. That is a little bit of self-deception and it is very dangerous.”*

In a third case company, there was a concrete example regarding investments in the Swedish insurance company Trygg-Hansa in the early 1990s. During the period that followed, Trygg-Hansa ran into financial problems, partly because of the Swedish financial crisis (see table 7.2).² In that situa-

² In early 1991, Trygg-Hansa made two acquisitions. The first was of slightly over 40% of the share capital in Gota Bank, the fourth largest Swedish bank at the time. Trygg-Hansa paid by issuing new shares to the seller, SPP, another large Swedish insurance company. This made SPP a large owner of Trygg-Hansa. The two companies merged some of their operations and changed the company name to Trygg-Hansa SPP Holding. Secondly, it acquired 33.3% in Home Insurance Company. SPP and Trygg Hansa Life bought another 13.75% and 13.25% respectively, and, in total, the three companies owned about 60% of Home. In mid-1992, Trygg-Hansa SPP Holding bought more shares in Gota Bank, totalling 96% of the share capital. During September–October 1992, the Trygg-Hansa share reached its lowest levels. On 9th September 1992, Gota Bank ceased their payments, and Trygg-Hansa wrote off the value of their shares, and other claims on the company. This reduced the consolidation capital by about SEK 3.6 billion. At about the same time, Trygg-Hansa lost another SEK 0.5 billion on their stakes in Svenska Kredit and International Credit. Finally, this was at a time when interest rates in Sweden were very high, and increasing, just before the depreciation of the Swedish krona. In December 1993, Home Insurance was quoted on the NYSE, but the company fell into a negative cycle when interest rates increased and the L.A. earthquakes caused large losses. Home’s capital base shrunk, which made the credit rating institutes downgrade the company, and so on. In November 1994, Trygg-Hansa got a new CEO, who

tion, the case company decided to leave the shareholding more or less unchanged.

Table 7.2 Key figures for Trygg-Hansa 1989–1994

Source: Trygg-Hansa’s annual report 1994.

	1989	1990	1991	1992	1993	1994
Return on consolidation capital (%)	16.3	-16.9	1.3	-57.7	29.9	-53.6
Consolidation ratio (%)	240	171	200	121	165	90
Net worth, SEK billion	10.0	8.6	10.8	7.5	9.5	4.1

One of the interviewees described the background to their holding in Trygg-Hansa as follows:

“Trygg-Hansa is a very strange company, since I feel as if it had Sweden’s most unsuccessful management during this period. They had managed to buy Gota Bank and get it to go bankrupt and then they have gone into Home and it looks very uncertain. And they have managed to go to bed with SPP and then solo again now then. It is really fantastic that you can make so many mistakes in an insurance company in such an extremely short period of time. The most surprising was when [Trygg-Hansa] made a bid for, and bought up the remainder of Gota [in mid-1992]. I have never been so surprised in all of my life. And the reason is simple. After all, we did have some Trygg-Hansa shares 1991–92 and I suppose we felt how the market price went down here. The potential, that is the possibility of a recovery in the share that I saw here, that was if it would be successful to sell their half of Gota Bank. Then I thought this might recover. And seldom in my life have I been so surprised when the guy goes out and does exactly the opposite. Because that is a road that leads to death.”*

Still, the case company did not sell their Trygg-Hansa shares upon hearing that Trygg-Hansa had made a bid for the rest of Gota Bank. The interviewee described what happened next as follows:

“We then ended up during a period when it was clear that now it is impossible to get out of that company. ‘Should we take this loss? No we should not.’ We didn’t

decided to buy the minority’s Home shares and to delist the company. In 1994, Trygg-Hansa also ceased their operational collaboration with SPP.

want to sell when it looked to be at its worst. We were in here during this period (the second half of 1992) and here the analysis effort was mainly about credit evaluation. Will they just go to rack and ruin? And I have said that they won't do that. When the price was down somewhere around 17 kronor, I remember a meeting where I very clearly tried to show that the company at least was healthy in that respect.”*

The above quotation indicates that the Trygg-Hansa shares were not sold earlier because the case company wanted to avoid realising losses. Furthermore, the above quotations also indicate that this case company saw some non-negligible risks of bankruptcy in Trygg-Hansa, but chose not to sell their shares in it (see also section 8.1).

These observations regarding the avoidance of realising losses could also be linked to corporate governance issues. The institutional investors selected for the present study were expected to follow financial logic when they made investment decisions (see section 1.1). Overall, the empirical results indicated that financial logic was commonly applied by the institutional investors. In particular, they avoided board positions and being the largest owner, because they wanted to be free to sell at any time. However, in two types of situations, case companies were observed to apply voice behaviour (see section 2.1.3). One such situation concerned companies experiencing financial problems. Here, the case company could be more active, for example, by giving the management advice regarding strategic and operating issues. The other type of situation concerned new issues of shares. Here, the case companies could sometimes put pressure on the management regarding how to use the capital that was raised. The case companies appeared to want to know, in some detail, what the money was to be used for. However, when new issues had been formally decided, it seemed to be customary to participate if one was a large owner. At times, the case companies seemed to apply less strict company fundamental criteria to new issues than to ordinary buys.

7.1.2 Reduced freedom of action linked to contextual premises

The studied institutional investors had less freedom of action in connection with external outflows of money than in connection with external inflows of money. An inflow of money could always be put into the cash account for a while before more stocks were bought, while an outflow of money needed,

in some way, to be financed. If there were not enough liquid assets (or other assets) to meet the outflow, the outflow led to a forced selling situation. In sum, this meant that the pressure was stronger in the outflow situation than in the inflow situation, leaving less room for action in accordance with fundamental opinions about companies/equities, and more room for arguments concerning stock liquidity and the realisation of gains. Legal conditions were observed to play a more critical role in sell decisions than in buy decisions. They could contribute to forced selling situations, where the room for action in accordance with the fundamental opinion about the company/share was restricted (see section 6.3.1). However, when laws and directives facilitated buy decisions (see section 6.3.1), the situation was not forced, and here more alternatives were available to the institution.

7.1.3 Time precedence

The staff of the studied institutional investor organisations seemed to think about equities primarily in buying terms. This could perhaps be linked to the time precedence of the buy decision. When a company/share was considered for the first time, this concerned a buy, not a sale. Furthermore, in connection with new holdings, the case companies seemed to conduct a more thorough analysis than in other situations, as illustrated by the following quotation:

“If you take in a new holding, it becomes very important to assure yourself that there is nothing that lies hidden there. Something that we haven’t known or that we have neglected to take into account. Or something we haven’t understood, which has the effect that this can have a far worse development than we had expected. That is naturally always a risk, that you very much want to insure yourself against to the greatest extent possible by examining it down to the smallest detail.”*

Time precedence was also important when stocks were to be sold in order to buy others (internal financing consideration, see section 6.4.2). In these cases, the fundamental opinion regarding the buy candidate tended to be more influential than the fundamental opinion regarding the sell candidate, possibly because the sell candidate entered the decision-making process at a later stage. However, when, for fundamental reasons, shares were sold, the question of what to do with the money did not need to be linked to a new

buy in the same way. This situation could better be described as a new buy situation, less dependent on the sell decision. The time precedence of the buy consideration seemed to give fundamental opinions about companies/equities a stronger influence in buy decisions than in sell decisions.

7.1.4 Summary of findings

The findings presented in this section could be summarised as follows:

1. Fundamental opinions have more impact on buy decisions than on sell decisions.
2. Contextual premises are more important for sell decisions than for buy decisions, and lead to the differences regarding the role of fundamental opinions.
3. The reluctance to realise losses on equity investments reduces the importance of fundamental opinions in connection with sell decisions.
4. Sell decisions – more often than buy decisions – are influenced by contextual premises such as legal requirements and the institutional investor's financial position.
5. Buy decisions tend to be more unconditional than sell decisions, leaving more room for fundamental opinions.

7.1.5 Comparison with prior research

Prior empirical studies at the disaggregated level have not, to my knowledge, systematically compared buy behaviour with sell behaviour. However, in general terms, the use of acquisition price as the reference level, and the reluctance to realise losses observed in the present study, is in line with prospect theory (see section 2.6.1). Furthermore, Hedlund *et al* (1985) observed that the realisation of profits seemed to be quite a common motive when institutional shareholders decided to sell stocks, and that the institutional owners they studied were not very quick to sell stocks in companies that performed poorly (see section 2.1.5). Hedlund *et al* do not link these results to prospect theory. Instead, in their view, one possible explanation is

that because the institutional holdings were so large, the low liquidity on the Stockholm Stock Exchange made it impossible for institutional owners to sell the shares without a major price impact. In the present study, such liquidity restrictions were sometimes important (section 6.2), but they were not specific to the sales of equities carrying unrealised losses.

At the aggregate level, Odean's (1998a) study of individual investors examined the trading records of 10,000 accounts at a large discount brokerage house. Odean reported a tendency among these investors to hold the losing investments too long and to sell the winning investments too soon. According to Odean, this demonstrated a strong preference for realising winners rather than losers, and he suggested that this could be explained by prospect theory. In a similar type of study on Finnish data, Grinblatt and Keloharju (1999) also reported a reluctance to realise losses. However, they noted that more sophisticated investors seemed to give less weight to past returns in deciding whether to buy or sell (*ibid*, p 40). Many studies at the aggregate level have also reported that stocks, especially small cap stocks, can earn abnormal returns around the turn of the year (Claesson, 1987; Keim, 1989; Sias and Starks, 1997b). One suggested explanation for this is the window-dressing hypothesis, which refers to the portfolio rebalancing that institutional investors may be practising at year-end. The underlying idea is that institutional investors buy winners and sell losers before the year-end, in order to present respectable year-end portfolio holdings. There was no clear observation of window-dressing of this particular kind in the present study. However, some insurance companies realised gains at year-end in order to be able to report a higher net income in their legal accounts.

7.2 Magnitude of the investment decision

Two aspects of the magnitude of an investment decision are: (a) the degree of change in relation to the prior holding, and (b) the size of the portfolio weight change (see figure 7.1).

		Portfolio weight change	
		<i>Large</i>	<i>Small</i>
Degree of change in relation to the share-holding prior to the buy (sale)	<i>Major change</i> (new holding, turn-around from sell to buy or vice versa, total sell-out, large increase or decrease)	(I) Major buy (sale) causing large portfolio weight increase (decrease)	(II) Major buy (sale) causing small portfolio weight increase (decrease)
	<i>Minor change</i> (small increase or decrease)	(III) Minor buy (sale) causing large portfolio weight increase (decrease)	(IV) Minor buy (sale) causing small portfolio weight increase (decrease)

Figure 7.1 Decision situations of different magnitudes

Figure 7.1 shows the ways in which investment actions were classified during the inductive analysis. Square (I) represents the decision situation of the highest magnitude, while square (IV) represents the decision situation of the lowest magnitude level.

7.2.1 Analysis and consideration of company/industry fundamentals

A larger investment decision magnitude was typically linked to a higher demand for analysis and consideration of company/industry fundamentals. Each case company tended to have its own scale for how much additional analysis and consideration was needed in connection with, for example, a major buy compared with a minor buy. In general, company information oriented (CIO) case companies had higher demands on additional analysis and consideration than external advisor oriented (EAO) case companies (see also section 5.1.2).

When shares in a company were bought for the first time, this typically required a significant amount of consideration and analysis (see section 7.1.3). Once the initial, more thorough, analysis had been done, a further increase

in the holding seemed to require relatively little additional analysis. However, at the same time, the stocks that were already owned appeared to be better followed over time than the stocks that were not included in the portfolio. This could be illustrated by the following comment by one of the interviewees:

“In many instances it can be very tempting to look at [other stocks]. Perhaps it is more important that we look where we have our large investments and carefully follow those. We are into that, so it is very important that we keep an eye on them and that we make the right decisions about them.”*

With respect to sell decisions, total sell-outs typically demanded greater additional consideration and analysis of company fundamentals than did reductions in shareholdings.

The following example describes the relationship between investment decision magnitude and the need for additional consideration and analysis of company fundamentals. One of the case companies made small purchases of Incentive shares during 1993–1994 (square IV, Figure 7.1).³ One important factor for these decisions was the development of the stock market discount on the net worth of Incentive’s net assets (see also section 5.4.4). Table 7.3 shows (indirectly) that this discount was 22% and 32% at the end of 1993 and 1994 respectively (using Affärsvärlden’s measurement method).

Table 7.3 Relation between share price and net worth in Incentive, 31 December 1991–94

Source: Affärsvärlden

	1991	1992	1993	1994
Share price	138	178	261	239
Net worth per share	199	231	334	351
Price/Net worth	69%	77%	78%	68%

³ During this period, Incentive had subsidiaries in a number of different industries (e.g., Hägglunds Vehicle, Munters, MacGREGOR, Skandinaviska Elverk, Skega, Hasselblad), and a portfolio of quoted stocks (Asea, Electrolux and ESAB).

Incentive's holding in Asea was particularly important for the net worth calculation during 1992–1994, and the case company had positive expectations regarding ABB/Asea. It also had a positive opinion of Incentive's own operating activities. One of the interviewees described this as follows:

“In the case of Incentive, we have, after all, not had a negative attitude towards Asea, quite the contrary. We have been positive, so that has contributed [to the decision to buy Incentive shares]. But then [another reason is] that it is reasonable to expect that [Incentive] will be able to straighten out this industrial operation. Especially in 1992, no money was made by those companies and it's like you get them for free when you buy the share. It is not very difficult to sketch out a rather positive scenario where you suddenly begin to assign value to them.”*

These positive expectations regarding the company, combined with the high discount on Incentive's net worth, made the case company increase its Incentive holding in small portions. One of the interviewees summarised the reasons for the purchases as follows:

“Incentive is a company that we and all others with us assess more on the basis of net assets value when we calculate. YOU HAVE A BIG OVERWEIGHT. Well, it has turned out that way. These investment companies have tended to be far too cheap and if you are a long-term investor like us, it is difficult ever to arrive at a decision to sell. The situation is often that you buy when they are cheaper still. We buy that type of share and then we will never sell unless there is a bid for the company.”*

In this empirical example, the company fundamental opinion did not appear to be reconsidered each time the case company made small gradual increases in the shareholding. Instead, the decisions to buy seemed to be made rather mechanically when the discount on the net worth was seen to increase.

Although a larger investment decision was typically linked to a higher demand for analysis and consideration of company/industry fundamentals, this did not imply that fundamental opinions on companies/equities were more important for large decisions than for small decisions. The reason for this was that the impact of the investor context and the market premises on the investment decisions was not independent of the magnitude of the invest-

ment decision. For example, financing and stock liquidity became more critical for large decisions.

7.2.2 Summary of findings and prior research feedback

The findings presented in this section could be summarised as follows:

The magnitude of a possible transaction, in terms of the size of the portfolio weight change and the degree of change in relation to the prior holding, influenced the depth of the fundamental analysis.

I have not found any prior empirical research that explicitly deals with the magnitude of investment decisions.

7.3 Short-term and long-term decisions

Table 7.4 shows the distribution of the investment-decision-specific data, across a priori long-term and a priori short-term decisions.

Table 7.4 The distribution of the investment-decision-specific data across a priori long-term and a priori short-term decisions

	No. of investment decisions	%
A priori long-term investment decisions	548	94%
A priori short-term investment decisions	31	6%
	579	100%

The main reason for the high proportion of a priori long-term decisions in table 7.4 (94%) is that the eight institutional investors examined in this study were all long-term investors.⁴ None of the institutional investors expected to distribute all their assets to their owners in the near future, and therefore they were able to make a priori long-term investments. However,

⁴ Furthermore, the investment horizon could not be traced in the transaction lists, and the interviewees were rarely able to define their investment horizons in terms of a time period or a price level. Only investment decisions that explicitly involved selling (re-buying) the stocks at the time of the buy (sell) decision were classified as a priori short-term investments.

all of the case companies seemed to make some a priori short-term investing on the margin. The following quotation from one of the interviewees describes how this could work.

“Basically, there is a portfolio that is of a long-term character. It has a horizon of 3–5 years, something like that, and the more important stocks have that approximate life. For example, we’re now decreasing our forest industry holdings, and that’s not something we bought in January. Then, it does happen that we invest in connection with IPOs and such things, and then we often do it for a relatively short-term purpose.”*

A priori short-term investments meant that the institutional investor planned to sell (or buy back) the stocks very quickly, typically within the month. This was most frequent in one of the case companies, which held a particular portfolio for short-term investments.

The important motivating factors for a priori short-term investments were typically company/industry fundamental opinions and changes in the market premises. Contextual premises were generally of less importance. The a priori short-term investments differed with regard to how strongly they were linked to a company/industry fundamental opinion. They also differed with regard to whether the investment was made before, or in response to, news about a quoted company. The a priori short-term investments were typically small.

7.3.1 Investment decisions made before a confirming event

One type of a priori short-term investment was based on the investor’s own company fundamental opinion, and was made some time before the release of a confirming event such as a financial report. This type of investment was only observed to be made by CIO case companies in the large stocks that their internal analysts followed very closely. Investments of this kind appeared to be an infrequent activity, involving only marginal amounts in relation to the total portfolio size and to the total transaction volume. It appeared that a number of criteria had to be met before an a priori short-term investment of this kind was made:

1. The expectations of other investors, as reflected in the share price development, had to diverge materially from the case company's own expectations at the time of the investment decision.
2. There had to be a confirmatory event in the near future, such as a financial report release, that could show if the case company was right.
3. Certain conditions regarding the long-term expectations had to be met. When the institutional investor expected the share to develop well in the long-term, it seemed to want the right portfolio weight according to the long-term view, at the time it made its short-term investment. When the institutional investor expected the share to develop badly in the long-term, it could still make a short-term investment, if the risk compared to the index weight was considered so high that it counterbalanced the negative long-term view.

The following is an empirical example of this type of a priori short-term investment. One of the case companies sold Ericsson shares a few weeks before a third quarter report, and then bought back the shares after the financial report had been released. The share price increased materially during the weeks before the announcement of Ericsson's third quarter report, and the case company believed that this sudden share price increase was due to speculative pressure, and that it reflected overly high expectations for Ericsson's future. This was the underlying reason for the short-term sale, and the announcement of the report would show if the case company was right. Before this short-term sale, this company had net sold Ericsson shares over a long period of time, and its portfolio weight of Ericsson was below the index weight. This was described as the "right" portfolio weight at the time, since the case company had a negative fundamental opinion of the Ericsson share. This is illustrated by the following comment by one of the interviewees:

"First-rate company, but we think their valuation is high. All the analyses and forecasts that I see others do, I think are far too optimistic. Perhaps my forecasts have been a little too cautious, but there has not been such a big difference compared to what the outcome has been. For Ericsson, it would have been too pessimistic even to forecast an earnings increase of 10 per cent [per year until the year

2000]. It can easily become much worse than that, even though it may just be a cyclical downturn, or that the company runs into certain problems with its own products during a transitional period. There have been a couple of successful years; they are investing heavily and raise the cost level and they [might] run into a wall a little bit and be forced to apply the brakes. [But] they now have a very much larger infrastructure than they had only a few years ago.”*

The case company only invested a rather small amount in the short-term transaction, since it already had an underweight compared with the index. Although it thought that the Ericsson share was highly priced, it believed that a larger sale of Ericsson shares would lead to too large a deviation from Ericsson’s index weight.

7.3.2 Investment decisions made in response to news

Immediately after financial report announcements, institutional investors usually evaluated whether any new investment opportunities had arisen as the following comments describe:

- “When the report arrives, [the portfolio manager] asks for a spontaneous comment, is the report good or bad, in order to get a first indication if we think that we should act on a short-term basis in some fashion. But then we have actually not had time yet to analyse the report.”*
- “DO YOU EVER, AFTER THAT FIRST FLASH [IN CONNECTION WITH A REPORT RELEASE] SAY THIS WAS NOT WHAT I EXPECTED, NOW WE’LL GO IN AND BUY OR SELL? No, in most cases it’s not like that. The situations when one can make a major portfolio shift based on new information before others have time to react, they are extremely rare. Obviously you can make a quick assessment and sell off 20,000 shares or so if there is a disappointment, and that has happened, right, but it is very rare.”*
- “AFTER YOU HAVE MADE THIS FORECAST ADJUSTMENT (AFTER THE REPORT) THEN...? We have a trading function here, you can go there and say that this was good news that may well affect the share on a short-term basis and then they can act themselves. BUT IF THE NEWS HAS ALREADY COME OUT, HOW MUCH TIME DO YOU HAVE? Well, most people act in the same way. They go home and calculate and examine and then, if they are a brokerage firm, they go out to their brokers and tell them ‘Now we should push this’, and that can take a day or two.”*

As these quotations suggest, the short-term conditions prevailing in the market directly after the report could initiate investment actions. These did not need to be a priori short-term investments, although empirical observations of this type were made.

One type of observation of a priori short-term investments made in response to news concerned CIO case companies' investments in large stocks that the internal analysts followed very closely. These investment actions stemmed either from the institutions' perception of themselves as being faster than other investors in analysing the announced information, or a belief that other investors misinterpreted the announced information, as in the following example. At the release of Astra's closing communiqué one year, the share price declined materially. One of the CIO case companies did not interpret the information negatively, and decided to make an a priori short-term investment. One of the interviewees explained this as follows:

"The rest of the market interpreted the report more negatively than we did. We did not interpret it negatively. We have a good analyst on Astra and he was rather dead certain that this was an overreaction by the market. The share went down a lot when the report came and then we decided to buy a million shares or so and then when they had gone up a couple of per cent we sold them. DID YOU DECIDE BEFOREHAND HOW MUCH THEY WOULD HAVE TO GO UP FOR YOU (TO SELL)? Yes we did approximately; when it has gone up by 5 kronor or 6 kronor. DID YOU SELL EXACTLY THE SAME [NUMBER] AS YOU HAD BOUGHT? Yes, exactly the same number. A departure from the normal, but you have to do that too sometimes, take advantage of the market's imperfections."*

On this occasion, the case company believed that other investors had misinterpreted the information in the closing communiqué.

Another type of a priori short-term investment made in response to news was primarily observed in the EAO case companies. This type of investment seemed to be made in all types of stocks, but involved only small amounts in relation to the total portfolio size and total transaction amount. Some of these investments were explained by the interviewees to be the result of only "a feeling" about how the share price would develop in the near future. Others were said to be based on a belief that the share price would develop favourably. This belief was based on one or more of the following:

- The perception of having received the information before other investors.
- The perception of being able to transform the information into action faster than other investors.
- The strong trust in an external advisor's advice.

The following empirical example describes an a priori short-term investment of this type. One of the case companies invested in two small saw mill companies (CF Berg and Rörviksgruppen) at the beginning of October 1993. This was an a priori short-term investment that was based on trust in an industry expert who had provided advice that the case company perceived to be valuable. Furthermore, the case company believed that this information was not yet known by other investors, and therefore not yet reflected in the share prices. This is evident in the following account by one of the interviewees:

“This was a general run-through at a lunch arranged by a [stockbroking] firm about that saw mill industry and [the representative] from the industry association of sawmills mentioned certain companies, that things looked very good. [The presentation] was not particularly well attended, a somewhat odd thing, and there were only two small quoted companies, so it has an impact of course. Then I remember that we bought those CF Berg and Rörviksgruppen and then there was a report after a few days and there were articles about the industry in the papers and then they went up enormously.”*

With regard to losses on a priori short-term investments made by two of the EAO case companies, two phenomena were observed. The companies could avoid the realisation of losses by turning the a priori short-term investments into long-term investments (see section 7.1.1), and they could try to compensate for earlier realised losses on short-term investments by making new a priori short-term investments in the same stocks. However, it should be emphasised that the number of these observations was rather small.

7.3.3 Arbitrage transactions

Another type of a priori short-term investment was referred to by the interviewees as arbitrage transactions. The most commonly observed type of

arbitrage was between shares with different shareholder rights (different voting rights, in particular). Other types of arbitrages were between shares and KVBs,⁵ between shares and convertibles, between shares and options, and between the OMX share index and the underlying shares in this index.

The rationale for the arbitrage transactions was to change from one type of share to the other when the spread deviated materially from the historical pattern. In turn, the two principal underlying causes of these spreads seemed to be differences in voting power and differences in stock liquidity. Most of the transactions that the interviewees referred to as arbitrages were not completely risk-free and thus not real arbitrages. There was clearly a risk that the historical pattern of spreads would not be repeated in the future.

On average, the transaction amount in each arbitrage transaction (the sum of the buy and the sell amount) was about MSEK 4. The transactions were relatively common; five of the case companies had transactions of this kind on their transaction lists. Arbitrage transactions were observed in the securities of the following quoted companies: AGA, Asea, Astra, Atlas Copco, BPA, Custos, Ericsson, Investor, JP Bank, Kinnevik, MoDo, Pharmacia, Sandvik, SCA, S-E-Banken, SKF, SSAB, STORA, Sydkraft and Volvo.

7.3.4 Summary of findings

The findings presented in this section could be summarised as follows:

1. A priori short-term investments were only of marginal importance to the institutional investors in this study.
2. With regard to certain a priori short-term investments, the fundamental opinion was of some importance. These investments were typically triggered by a specific event, or by a future financial report announcement, and were based on an evaluation of the short-term stock market development in relation to the institutional investor's own fundamental opinion.

⁵ KVBs ("konvertibla vinstandelsbevis") are convertible securities, comparable with American adjustable rate convertible notes. Two quoted companies (Industrivärden and MoDo) had KVBs quoted on the Stockholm Stock Exchange.

7.3.5 Comparison with prior research

Two of the prior studies of institutional investor organisations provide some support for the view that institutional investors who could be expected to be long-term investors, also, to some extent, make investments based on short-term investment horizons. The UK institutional investors studied by Holland (1995, p 71) classified their portfolio holdings of equities into three categories. The length of the investment horizon was one of the bases for this classification, and one of the categories included short-term, transient, investments (see section 2.2.4). O'Barr and Conley (1992b) suggested that there was a mismatch between how the institutional investors behaved and the rhetoric of the long-term they typically used (see section 2.1.3). However, O'Barr and Conley did not investigate to what extent the US pension funds that were the subject of their study actually pursued short-term strategies.

8 Dealing with uncertainty

Much of the institutional investors' work involved dealing with uncertainty associated with the equity investments. Sections 8.1–8.5 describe five different ways this was done. Section 8.6 describes how the case companies used the classical theoretical ways of dealing with investment-related risks (i.e., required rates of return and diversification). Dealing with uncertainty from the staff point of view is elaborated in section 8.7. Since sections 8.1–8.7 all present different aspects of dealing with uncertainty, the findings of this chapter are summarised and compared to prior research at the end, in sections 8.8 and 8.9.

8.1 Selecting companies for investment

When selecting companies to invest in, the case companies seemed, first of all, to examine the quoted companies' abilities to survive in both the short-term and long-term. A common empirical observation was that whenever the institutional investors perceived that there was some non-negligible risk of a financial crisis in a company, this company was eliminated as an investment alternative. This may be illustrated by the following quotations from two of the case companies:

Equity investments in 1993

“In the long term, it is how the company is doing that is decisive, but in a shorter perspective it is extremely important to consider how the company is valued. If you look at this year for instance (1993), these big well-known companies have often done a little worse than the market, because we have been in a revaluation phase of the inferior companies. It has then been at least as important to take the price of the share into consideration. But we are of course permeated by portfolio thinking and a long-term strategy and what we have said is that we should have good companies in the portfolio. We have therefore set up certain equity ratio requirements and interest coverage requirements. For example, we're not prepared to absorb a total loss in the form of a bankruptcy. Take S-E-Banken for example [during the bank crisis], that was never an alternative for us.”*

Buy of Trelleborg shares in 1994

“I felt that the financial risk was clearly diminished and that was the principal argument behind our daring to buy the company in the first place. Trelleborg had been extremely crisis-valued and there was a fear that this new issue wasn’t going to succeed. This is a company with a great deal of risk in its operations, plus the fact that they have engaged in quite a few very special deals. It was simply a company-specific risk that made us not want to buy into that company before. In 1994 we began to realise that this company is interesting. Below the 60-kronor level there, because then this new issue of shares had been brought to a successful close and [the potential] was more obvious.”*

Accounting data appeared to be an important basis for the institutional investors’ judgements of what companies that should be rejected at an early stage. The focus seemed to be primarily on financial strength and liquidity.

There were two types of exceptions to the avoidance of companies with a non-negligible risk of financial crisis. Firstly, when the case company already owned shares in a company that ran into financial problems, it tended to hold on to the shares instead of selling them directly (see section 7.1.1). Secondly, one of the case companies was more risk-seeking than the others, and seemed to accept non-negligible risks of financial crises.

One possible explanation for the institutional investors’ rejection of companies that were perceived to be very risky is that they were afraid that involvement in a bankruptcy could lead to bad publicity, and have a negative impact on their relationship with their principals.

8.2 Collecting more information and postponing decisions

A very common way of dealing with uncertainty was to collect more information, either by actively searching for more information or by waiting for more information to be released. Investment decisions could also be postponed with reference to the high level of uncertainty.

In connection with many of the more material investment decisions, the idea of buying or selling started months, sometimes nearly a year, before the

investment decision was finally made. During this period, the case company would search for information, wait for information, and postpone the decision until it was sufficiently certain that the decision was right. The following empirical example demonstrates this approach. One of the case companies began to reconsider its fundamental opinion about the Swedish forestry company SCA at a certain point in time, because it had become more sceptical towards the forestry industry. From the time it began to reconsider its fundamental opinion, it also began to sell SCA shares. However, as the case company was uncertain of whether it was right, it sold small amounts, and waited for more information, for example quarterly reports, to be released. A few months later, the case company received some negative news regarding SCA, which raised some questions regarding SCA's management. As a consequence, it arranged to meet with SCA's management in the hope of gaining further insight. As this process continued, the case company gradually sold more and more of its SCA shares; the selling process took, in all, about eight months. The quotation below illustrates how the case company reasoned with regard to SCA:

“We were a little puzzled with regard to the management. A lot of turbulence and the unsuccessful Otor acquisition. Haven't they done their homework properly? Are they unable to study their acquisition targets? Turbulence in Mölnlycke and Jack Forsgren fired and a new manager. Uncertainty about the strategy. There has been a little of...not distrust, but a small question mark about management. THE DECISION TO SELL, CAN YOU REMEMBER WHEN YOU MADE THAT DECISION? Yes, [the decision] to decrease [the holding] was here in [month x]. Then it has happened gradually over [eight months]. [During this period], we have been in contact with them and there has been some negative news.”*¹

When the uncertainty increased regarding a company/share, it was common to actively search for more information, and to wait for more information. The information that was actively searched for was typically non-public information from the quoted company and from external advisors. For example, when the uncertainty increased about Astra's main product in 1994, as described in chapter 4, non-public contact with the company was important for one of the case companies (I-1), and non-public contact with exter-

¹ The unsuccessful Otor acquisition refers to SCA's attempt to acquire the French company Otor. Mölnlycke was the hygiene product subsidiary.

nal advisors was important for one of the other case companies (I-3). Waiting for more information could mean waiting for financial reports and/or other public information from the companies. For example, in the forestry case described in Hellman (1996), the case company Alfa wanted to wait for a new issue of shares to become successfully completed in MoDo, before starting to invest in this company. Waiting for more information could also involve waiting for future public meetings with the companies and waiting for external analysts to express their opinions (see section 9.2.1).

8.3 Giving priority to trustworthy sources

A very common way of dealing with uncertainty was to give priority to highly trustworthy information sources. A high level of trust in the information source also seemed to limit the scope of the information search, and in some cases it seemed to reduce the need to verify the information against other sources. The trust aspect was particularly important with respect to non-public information. Many of these observations concerned the importance of trust in connection with personal contact with company managers, which the following quotations from different case companies illustrate:

- “I consider it awfully important to make corporate visits, in order to get some kind of opinion about these soft factors: experience of management, credibility, competence. I have visited [many companies] over a long period of time. You go back to your own historical archives; what did they say 5 years ago, what have they achieved? That gives a small indication of how credible they are when they say things today.”*
- “I attend a lot of breakfast meetings and luncheons with corporate presentations with management. Not that it gives so much in the way of, what should I say, material, generally. Or that you change your view of whether they are going to make more or less, or invest more or less. Instead it’s more of a feeling for how management behaves and how confident they feel. Their way of answering questions, and that you feel that you have confidence in management. That’s a very important part for me.”*
- “When we make corporate visits, we often write something about [management]. It is often one of the messages we try to convey. I try to get my impressions down about the company, because I think that’s very important. It’s very

much a matter of investing in management when we make an investment. It is a matter of confidence in management also, at different levels. In part for top management, but also to get a feeling for how things are at different locations in the organisation, especially perhaps in rapidly growing companies. How will they stand up to the pressure and what is required of management then? HOW IS THAT ENTERED INTO THE VALUATION? Well, it gets included as a basis for what kind of growth we believe in, because it is a very important factor for the business risk, the ability to achieve these expected profits. It is one of these soft, qualitative variables.”*

The trust aspect was also important in connection with the use of non-public information from external advisors. Many of the internal analysts and portfolio managers seemed to trust some external analysts more than others. In the EAO case companies, the high reliance on external advisors made trust a particularly critical factor. This is illustrated by the following quotation:

“The first time [the external analyst firm] says: ‘You should buy this, this is terrific.’ Then you take a look at this and then you decide to do something. Then it turns out terrific and then the next thing comes along and they say: ‘This is first-rate’ and then you run over to that firm and they take you through it and then you do it. The third time, you don’t even bother to go there, instead [you say to them]: ‘Yes, then you can buy’. I have a great deal of confidence in those we work with.”

Trust was also observed to be important with respect to public information. Some companies were considered to practise particularly conservative accounting or to have particularly trustworthy forecasts. Other companies were considered to practise less conservative accounting or to be represented by many different people who gave inconsistent information. Overall, trust in public information was primarily linked to the trustworthiness of the company management. This could be illustrated by the following comment by one of the interviewees, regarding one of the large quoted companies:

“I think that when [the CEO] speaks, it is always [about] his visions and the profitability goal, which he never achieves, and fiddling with large provisions which results in not a penny of costs the year after. And all of this only to achieve those profitability goals.”*

Trust was also referred to in section 7.3.2 (short-term investment horizons).

8.4 Adding qualitative aspects

One way of dealing with uncertainty in the analysis work was to add qualitative “pluses” and “minuses” to the quantitative analysis (see section 5.2). An important reason for adding qualitative aspects was that they were not perceived to have been fully considered in the quantitative analysis. As described in section 5.2, the CIO case companies often based their qualitative opinions on non-public information from the quoted companies. In particular, the quality of management was an important qualitative factor. The qualitative opinion of management was linked to the dealing with uncertainty in the sense that it appeared to affect the strength of the investor’s own belief in a particular scenario for the company. For example, if a manager was considered to be trustworthy, a meeting with her/him in which s/he talked and behaved more optimistically than usually, could make the institutional investor feel more confident in its expectations for the company (for examples, see sections 4.1.2–4.1.4). Contact with the company also seemed to improve the institutions’ understanding of what was decisive for future success or failure (e.g., the potential of new products, research and development projects, product safety). Such information could then be expressed as a qualitative aspect that reduced the uncertainty linked to the investment object.

8.5 Adjusting to other market participants’ behaviour

Section 6.2.3 elaborates the impact of index thinking on the institutional investors’ investment actions. The development of the index weights was an important decision input in several of the case companies. One reason for this was that the index weights were important for the management of portfolio risks (see section 8.6.2). However, my interpretation is that the reason for staying relatively close to the index weights was also that it was a way of dealing with the fear of standing out as extreme compared with competitors on the money management market. All of the institutional investors handled large amounts of other people’s money, and if they stood out as being incompetent or unsuccessful, their principals would be dissatisfied. Index-based performance evaluations were important in many of the institutional

investor organisations (see section 6.4). As a consequence, a significant negative index deviation could potentially be very negative for the institutional investor's operations (fund management, insurance etc.). Not deviating significantly from the "average" behaviour of other market participants, as reflected by the index weights, seemed to be one way of avoiding performance outcomes that could have a negative effect on relations with principals. Some of the interviewees also described how difficult it was for a very large institution to do significantly better than the index; to do this it had to become a very large owner in certain companies, which was not in line with its investment policies (see also section 7.1.1).

With regard to the development of fundamental opinions about the investment objects, the internal analysts in the CIO case companies often compared their own expectations with the external analyst's expectations; and some appeared somewhat anxious about not deviating too much from the external analysts' expectations (see section 5.5.1). This could be interpreted as a way of dealing with uncertainty during the analysis work.

8.6 Required rates of return and diversification

Two classical theoretical ways of dealing with investment-related risks are (a) to apply a required rate of return in connection with equity valuation, and (b) portfolio diversification. The sub-sections below describe how the case companies dealt with required rates of return and portfolio diversification.

8.6.1 Required rates of return

Required rates of returns were explicitly used for the valuation of equities, or for the judgement of external advice, by all of the CIO case companies and two of the EAO case companies. These required rates of return were typically calculated as a risk-free rate of return plus a risk premium. Case company differences were observed with respect to:

1. How the risk-free rate of return was determined (directly determined in nominal terms or divided into a real risk-free rate plus expected inflation).

2. How the risk premium was set (the same premium for all stocks, separate premiums for each stock or group of stocks, or no premium at all).

Beta values were used operationally by two of the case companies. One used them only at the portfolio level and not for the choice of particular stocks. The other used beta values when it calculated the risk premiums included in the required rate of return. Another way of varying the risk premiums for different stocks was to more arbitrarily assign lower risk premiums to stocks in mature companies, and higher risk premiums to stocks in companies with high business risks or high financial risks.

The required rates of return were used for sensitivity analyses of equity valuations. However, as described in section 5.2.2, it was a common view that the quantified analysis only generated one of the inputs to the decision-making, and that the equity valuations were crude and included many assumptions. This view also applied to the required rates of return, as illustrated by the following quotation from one of the portfolio managers.

“DO YOU HAVE ANY SPECIAL WAY OF SETTING REQUIRED RATES OF RETURN FOR DIFFERENT INDUSTRIES, DIFFERENT STOCKS, ETC? No it’s more of a feeling. I can’t say that MoDo should have a required rate of return with a risk premium of exactly 4.8 per cent. It has to be a very rough assessment. After all, I manage [many] funds, and [many] securities in each fund, and the total offering of stocks is enormous.”*

Four specific aspects made the use of required rates of return difficult in the case companies. Three of these have already been dealt with earlier in this thesis. Firstly, some information underlying the fundamental opinions was of a qualitative nature, and the institutional investors normally chose not to try to quantify such information (see section 5.2). This information mainly refers to non-public information about the quoted companies. This meant that the required rate of return was not perceived to capture all company-related uncertainty. This is illustrated by the following explanation by one of the interviewees:

“What we discount, that is only our future expected profits and the future expected equity at a certain point in time. Then it’s also a matter of valuing this in some way and that we have discussed. Either you can have a required rate of re-

turn that differs from case to case depending on the risk assessment you do, in other words you then plug in different risk premiums. Or you can do what we do, we let it be reflected in the valuation, which also contains quite a few qualitative judgements.”*

Secondly, required rates of return were perceived to be less relevant in situations in which there was a perceived lack of investment alternatives other than equities. This was described in section 5.6. Thirdly, there was a general tendency to adjust to other market participants’ behaviour, and it was a common view that other market participants put little emphasis on required rates of return when appraising shares (see also section 5.5, 5.6 and 8.5). This could be illustrated by the following quotation from one of the senior investment managers:

“The valuation of equities in Sweden has been somewhat complicated by the fact that, to get the equation to balance out, you must have a rather low required rate of return. There are of course rational arguments of different kinds that indicate that the required rate of return cannot be that low if we at the same time consider what the bond interest rate is. But you can’t be too rigid either, because it is not actually the required rate of return that you set that matters most. Or let me phrase it like this: the market has so many times cut loose from what would be a reasonable required rate of return that you can’t rely completely on that.”*

Fourthly, certain organisational aspects made it difficult for the institutional investors to apply the required rates of return consistently. None of the case companies had a “centralised” way of deciding the required rates of return. This left room for different ways of dealing with required rates of return within the same organisation (see also section 9.1).

8.6.2 Diversification

The case companies dealt with uncertainty at the portfolio level by diversifying across their investment alternatives (see also section 6.4). With regard to the equity portfolio, case companies differed in how their diversification was carried out.

Four of the case companies related the portfolio risk more systematically to their benchmark index. To them, holding a portfolio weight equal to the index weight in a certain stock (or industry or geographical area) was re-

ferred to as “zero risk” or “neutral position”, and they increased their portfolio risks by deviating from the index weight. One of the portfolio managers described this as follows:

“When I look at sectors, then it’s overweights, underweights or some neutral position that applies. After all, you have to bet on something (deviate from index), but the differences are often very small, since the attitude on the part of the management here is that we should have a portfolio that is quite close to index. This means that if I have managed to do five per cent better than index, then somebody probably will come and hit me and say ‘What the hell have you been doing? You have been taking too big a risk.’”*

The other four case companies’ diversification could be characterised as “intuitive”. That is, equity investments should be spread out across a number of geographical areas, industries and stocks.

8.7 The staff point of view

For the internal analysts, portfolio managers and senior investment managers that dealt with risks related to investment objects, risk-taking could also have personal consequences. It seemed important for them to be protected against receiving all the blame for investment decisions that could later prove to be unwise. At the same time, it was not unimportant for the staff members to receive recognition for their achievements.

8.7.1 Spreading out transactions over time

One common measure, aimed at reducing uncertainty during the implementation of investment decisions, was to make many small transactions over a long period of time, instead of a few large transactions during a short period of time. In this way, the person responsible for carrying out a transaction reduced his/her risk of being blamed for having bought or sold too much on a particular day (bad timing). In addition, by making many small transactions, the risk of driving the share price was reduced, which was particularly important for the larger case companies (see section 6.2.2). One effect of this strategy was that it could take a very long time for an investment decision to be fully implemented.

8.7.2 Incentive structures

Some of the case companies offered a bonus system that was linked to beating the index. This seemed to reinforce the view that risk is primarily related to the index (see section 8.6.2) and emphasises the importance of relative outcomes. These bonus systems also seemed to encourage calendar-year thinking.

8.8 Summary of findings

The findings presented in this chapter could be summarised as follows:

1. Many of the measures taken by the institutional investors aimed to cope with, and reduce, the uncertainty associated with equity investments.
2. The institutional investors tended to reject quoted companies where the financial crisis risk was considered to be non-negligible. Accounting data appeared to constitute a basis for such judgements.
3. When the institutional investors perceived uncertainty about the investment object, much of their behaviour consisted in postponing decisions, searching for more information, and waiting for further information.
4. The trustworthiness of different information sources made a great difference to the institutional investors, and in cases of uncertainty they paid greater attention to the sources they perceived to be particularly trustworthy.
5. The institutional investors collected additional non-quantified information as a way of dealing with uncertainty in quantified forecasts.
6. In order to avoid being exposed to too great an uncertainty, the institutional investors adjusted their judgements to the observable opinions of other market participants.
7. Required rates of return were often referred to in connection with the quantified analysis of equities, but several factors made it difficult to

apply them in a consistent manner: the qualitative nature of non-public information, the dependency on other market participants, the perceived lack of alternatives other than equities, and organisational aspects.

8. Several institutional investors implemented a far-reaching diversification of their portfolios in accordance with the principle that the portfolio should not deviate significantly from the stock market index. Accordingly, risks were defined in relation to the index.
9. Index-linked bonus systems, used in some of the institutional investor organisations, reinforced index-related views of risk.
10. In order to reduce risks, the institutional investors often preferred to spread out buy and sell transactions in smaller lots over a long period of time, instead of making a few large transactions during a short period of time.

8.9 Comparison with prior research

In the financial literature, the issue of how to deal with uncertainty mostly concerns how to determine the required rate of return and how to achieve optimal portfolio diversification. Prior empirical research on the subject of equity investments and uncertainty often starts out on the basis of the prevailing financial literature, and typically delimits the investigations to variables that are measurable (e.g., Mear and Firth, 1988; Fama and French, 1993). The empirical results in this thesis provide, in some senses, a richer description and suggest that in addition to diversification and application of required rates of return, institutional investors engage in a number of other strategies to cope with, and reduce, the uncertainty that is linked to equity investments (findings 2–6).

One type of observed behaviour was the tendency to reject, at an early stage, all the companies in which the institutional investor perceived some non-negligible risk for a financial crisis (conclusion 2). This is in line with Bouwman *et al* (1987, 1995), where searching for reasons to reject the company was identified as important during investment screening tasks (see

section 2.4.2). In the present study, accounting data appeared to be a relevant source of data for the purpose of deciding which companies to exclude. This is in line with Bouwman *et al* (1995), who report that GAAP-based information played a dominant role in eliminating unattractive investment candidates (see section 2.4.2). Furthermore, in the present study, the institutional investors seemed to place particular emphasis on financial strength and liquidity (balance sheets and cash flows), when examining which companies to eliminate. Some related results have been reported in prior research. Day's (1986, p 305) study indicated that balance sheet information might be important for eliminating unattractive investment alternatives. In Mear and Firth's (1988) study of the risk assessment measures used by a number of New Zealand analysts and portfolio managers, the most significant variables were net assets and proprietorship ratio. At the aggregate level, Barth *et al* (1998) report that the explanatory power of book value increased as financial health decreased. At the same time, the explanatory power of earnings decreased as financial health decreased. This seems to imply that the balance sheets of unprofitable companies receive more attention than those of profitable companies (see also Hayn, 1995).

Another way of dealing with uncertainty was to pay attention to the sources perceived to be particularly trustworthy (conclusion 4). This could reduce the need for additional information search, and the need to verify the information against other sources. In a general sense, this corresponds to Huemer's (1998) conception of trust in business relationships, where the dominating view of trust relates to risk in various ways, and also to Johansson and Östman (1995) who argue that trust is important in the sense that it prevents the need for control mechanisms and regulations from becoming too high. With regard to empirical studies at the disaggregated level, Holland (1995) reports that trust was a very important aspect in the relationship between institutional investors and their portfolio companies (see section 2.1.5). Similarly, O'Barr and Conley (1992a) report that the personal relationship was very important for pension fund managers in their selection and maintenance of outside money managers (see section 2.1.3).

For several institutional investors, the dealing with company-related uncertainty was to some extent reduced to the question of whether or not to deviate from the quoted company's index weight (conclusion 8). Here, to my

knowledge, no comparable empirical studies exist at the disaggregated level. In the financial literature, the question of whether to choose active management or passive management (indexing) has received a great deal of attention (see, e.g., Lofthouse, 1994, part 6). In the O'Barr and Conley (1992a) study, this choice was reported to represent one of the fundamental decisions that each of the pension funds made. However, in the present study, all of the portfolios were actively managed.

With regard to conclusion 9, Athanassokos (1992) suggests that the nature of the compensation system in the securities industry is one of the factors that affect the pattern of how institutions invest (see section 2.6.2).

Conclusion 10 concerns the dealing with uncertainty when carrying out investments. The results suggested that the institutional investors often preferred to make many small transactions over a long period of time rather than a few large transactions over a short period of time. Theoretical models of strategic trading suggest that transactions may be spread out over time in order to conceal information or in order to minimise execution costs (Barclay and Warner, 1993; Chan and Lakonishok, 1995). In the present study, spreading transactions over time was a strategy that investment staff employed to avoid being accused of badly timed investments. Insufficient stock liquidity was another observed reason.

9 Organisational aspects and time lags

The present chapter deals with the organisational aspects of the institutional investors' investment decision-making. The organisational effects on investment decisions were often subtle and indirect. In a number of observations, they could be described in terms of time lags.

9.1 Organisational aspects of investment decision-making

9.1.1 Co-ordination versus freedom for the individual

The case companies' investment decision-making processes often involved many different people. This joint decision-making called for a certain degree of co-ordination. At the same time, the measures that were taken to co-ordinate people limited the individuals' (e.g., analysts, portfolio managers) freedom to make analyses and investment decisions. The co-ordination activities were time-consuming, and some of the senior investment managers feared that increased co-ordination would reduce motivation and responsibility; co-ordination often concerned, for example, expectations and methods for analysis and equity valuation. The need for co-ordination seemed to be greater in the CIO case companies than in the EAO case companies.

In the EAO case companies, there were seldom more than two people who decided on the day-to-day equity investments, and these people seemed to develop common views on fundamentals, which made decision-making easier. However, in connection with large investments, several other people often became involved through superior committees of different kinds, and then measures had to be taken to arrive at a joint investment decision.

In the CIO case companies, one co-ordination aspect concerned the comparability of internal analysts' outputs. A common basic requirement was that the quantified analysis of a company should include an earnings per share (EPS) forecast to enable P/E ratios to be calculated. For the company analysis, two of the CIO case companies had co-ordinated their analysts to use

spreadsheet models that were standardised to some extent. Two of the case companies also had intrinsic equity valuation models that were standardised, but these were only used for companies/equities in more mature industries (see sections 5.4.1 and 5.4.2). Another type of co-ordination concerned the forecast input variables that all of the analysts had in common, such as interest rates and currency rates. All of the CIO case companies held meetings in order to co-ordinate macro-economic expectations, but with regard to the currency rates and interest rates used in each analyst's calculations, the variation across analysts appeared to be quite considerable.

One area where co-ordination appeared to be particularly difficult was the investment-related risk judgements. Earnings forecast figures could be compared with external analysts' forecasts, but the particular analysts' investment-related risk judgements seemed difficult to control internally, since they were to some extent expressed in qualitative terms. This is illustrated by the following quotation from one of the analysts:

“WHEN YOU DO THE ANALYSIS ON ERICSSON, HOW DO YOU THEN DEAL WITH UNCERTAINTY? Well, uncertainty is mostly handled in the form of our including it in the [earnings] estimates and that we verbally emphasise the risks. Less often, as I have done earlier [at another institution], is it included in your risk premium. I can draw up some kind of normal scenario. I can also sometimes say I am doing a very conservative forecast. In certain cases, I perhaps draw up one good and one bad scenario for certain factors, for what I think it will land between.”*

As described in this quotation, the investment-related risk judgements were included both in the quantified analysis and in the added qualitative comments (see also sections 5.2, 8.4, and 8.6.1). This means that even if the case company had agreed on how to calculate required rates of return, there could still be variations in the way in which each analyst emphasised quantified and qualitative aspects in his/her reports, presentations, and recommendations to the portfolio managers. With regard to required rates of return, two of the case companies allowed their analysts to decide the required returns, but they tried to keep the interest-rate expectations (risk-free rates) co-ordinated. The other two case companies had some rules for which required rates of return to use. In one of these case companies, the applied required rate of return was set at nine per cent for all Swedish equities, and

in the other it was calculated as a two-year government bond interest rate plus the general (market) risk premium times the beta of the appraised share. However, even in these case companies, there was room to deviate from these rules because of an apparent fear of over-co-ordinating the analysts. The following quotation from one of the managers may illustrate this:

”We have some kind of more basic required rate of return. This is a difficult matter. I don’t want to say that we have pushed very hard that it should be exactly in this or that way, but we have still tried to have consensus discussions and then we, like, let the analysts have a certain degree of freedom. Because I think that it’s so difficult to regulate things like that. AND THEN YOU HAVE [DIFFERENT] REQUIRED RATES OF RETURNS FOR DIFFERENT COMPANIES? Yes, but where we still, as I say, have had consensus discussions about how to look at this, which interest rate you are going to use as a basis. The thoughts around this are familiar, but then the companies are so different and there must be some freedom for the analysts here.”*

One possible reason why the managers were afraid of placing too many restrictions on the analysts is that these might later be used as excuses for analyses that proved to be incorrect.

9.1.2 Achievement of organisational co-ordination

To a varying extent, the case companies built up procedures for the decision-making processes in order to increase the degree of co-ordination. Trust seemed to be important for determining how much co-ordination was required.

Internal bureaucracy

The decision-making processes in the institutional investor organisations involved a number of formal and less formal routines. In general, the CIO case companies were organised more bureaucratically than the EAO case companies. Internal bureaucracy increased the co-ordination of different individuals, and control over the decision-making process. At the same time, it reduced the individual’s responsibilities and prolonged the decision-making processes (see section 9.2).

Trust

The level of trust between individuals appeared to determine the extent to which co-ordination activities were required. Highly trusted people were given more responsibility and freedom. As a consequence, fewer people were involved in decision-making, leading to shorter decision-making processes. At the same time, less trusted people were required to consult with others before a decision could be made. Insufficient trust could also lead to prolonged decision-making processes (see section 9.2). In some of the case companies, a great deal of trust was put in the portfolio manager, which meant that he had the power to make his own decisions without having to take into account the opinions of other staff members.

9.1.3 Problems associated with joint decision-making

That many different people were involved in the decision-making processes caused a number of problems in addition to those discussed above. One such problem concerned how to deal with internal disagreement (see also section 9.2.2). A common solution to this problem seemed to be to postpone making the decision.

Another problem concerned territorial thinking. Several case company departments tended to focus on themselves more than on the institutional investor organisation as a whole. Equity departments made investment budgets in which the net investment in equities for a future period was determined. Once the budget had been approved, they seemed somewhat reluctant to reallocate funds to any other department (e.g., the interest-bearing securities department). Investment budget negotiations appeared to take place between the departments. This is illustrated by the following quotation from one equity department interviewee:

“We don’t work like unit trusts, in the sense that we can have liquidity. What we give away, if for example we sell equities, would go to the interest-bearing securities department. But we have no impact on liquidity management; we only have equities. If we want to increase the [portfolio weight] of equities, we must apply and argue for more money. In the end, the outcome depends on our scenario for the stock market and the view that other parts of the finance department hold. These views are adjusted to each other.”

This quotation indicates that the valuations and investment opportunities suggested by the equity department staff were used as arguments for being given more money to manage. It could possibly also be the other way around, so that when an increased portfolio weight of equities had been negotiated in the budget, the equity valuations had to be adjusted to this. The “self-interest” that certain departments demonstrated is one possible explanation for the perceived lack of investment alternatives referred to in sections 5.6 and 6.4.3.

Joint decision-making called for communication between the individuals involved. This gave rise to a further problem involving “communication adaptations”, such as simplifications. These adaptations seemed to be reinforced by the competition between internal analysts. In the CIO case companies, the internal analysts competed with each other about the money to be invested. They knew that they had to convince the portfolio managers, and perhaps also the other analysts. In order to do this, the internal analysts engaged in “communication adaptations” when presenting their views within their own organisations, and were more aggressive or less aggressive depending on how they viewed their own position. This is illustrated by the following quotation from an internal analyst:

“It was rather easy at the beginning of the year to demonstrate that the P/E ratios were rather high. You didn’t have [to be an experienced analyst] to arrive at that conclusion. But, on the other hand, to sell the case with long-term growth and good long-term sustainable research efforts, that takes longer time. YOU SAY ‘SELL’. IS THERE SOME COMPETITION BETWEEN YOU AND THE OTHER ANALYSTS IN TRYING TO ‘SELL’ YOUR COMPANIES TO THE ASSET MANAGER? Yes, to a certain extent I think that’s the case. It is definitely so that you have to sell your message, and in part, I suppose, there is some competition as well. You can’t be overweighted in everything so to speak. Of course, if you have a case you think is interesting yourself, then you tend to make a greater effort to sell it to the managers and hope that they will listen carefully to what I have to say.”

Another aspect of the competition among internal analysts concerned their need to follow how the portfolio managers treated their companies/stocks. If the analyst did not pay enough attention to this, his/her companies/stocks could get lower portfolio weights than the ones the analyst had originally

recommended. For example, in one of the case companies, the engineering analysts observed that the Swedish engineering company Sandvik had become underweighted. However, the analyst had not recommended a portfolio weight below the index weight in this company. His own explanation was that this had to do with insufficient communication:

“If you look at our position today, we have happened to get under normal weight and I don’t know if I at any time have recommended that we should go down to underweight, but obviously we are in that position now. It can be a matter of a communications error.”

Another possible interpretation is that the analyst might not have argued strongly enough for Sandvik in his discussions with the portfolio manager.

Another type of observation related to communication adaptations concerned the toning down of uncertainty when communicating with the portfolio managers. This could involve expressing the forecast as one single figure instead of an interval, as the following quotation illustrates:

“DO YOU DO ANY SENSITIVITY ANALYSES? Yes, our forecasting model enables us to do sensitivity analyses. Increase the volume assumptions for instance and see how that affects our forecast. It may be that you change the price scenario, you believe in greater pricing pressures, and see how that affects the result. IS THAT SOMETHING THAT YOU INCLUDE IN THIS ANALYSIS THAT YOU LATER PRESENT? Yes. ONE SCENARIO, OR DO YOU HAVE SEVERAL? No, you could say that I have one forecast. Because my asset managers, they are not helped if I were to say: ‘Hey you guys, we live in an uncertain world, here you have 5 alternatives, take the one that suits you best.’. Instead I have my alternative, where I have weighed in what my assessment is. Then it’s up to the asset managers, do they believe in my price assumptions or not? But the important thing is that the analyst must take a position based on what he believes to be realistic. To sit there and speak of it being difficult, that we are simply not helped by. IT CAN BE SOMETHING THAT YOU TALK ABOUT AMONG ANALYSTS? Yes, and of course it is permitted to bring it up. It may be that [Asset Manager X] says ‘I don’t buy that price assumption, have you done your math on what the effect would be if prices go down by ten per cent?’, or ‘Have you looked at how the company will fare if the Swedish krona is strengthened by ten per cent?’. Yes, of course, then the outcome is like this.”*

9.1.4 Summary of findings

The findings presented in this section could be summarised as follows:

1. The decisions to buy, hold or sell stocks were made within organisational contexts, and consequently, several general organisational phenomena affected how the institutional investors dealt with uncertainty and made use of information.
2. In addition to its investment analysis functions, information had argumentation functions within the institutional investor organisations. Information was simplified, and specific aspects were emphasised to support the opinions of individual staff members.

9.1.5 Comparison with prior research

The only prior empirical study that emphasises the organisational aspects of institutional investor decision-making is O'Barr and Conley (1992a), who studied US pension funds. O'Barr and Conley report a lack of organisational perspective, in the sense that the staff members primarily tended to emphasise their personal perspectives (see section 2.1.3). This could perhaps be interpreted as a lack of co-ordinated behaviour in these organisations. On the basis of some practice-oriented literature, Lofthouse (1994) discusses the characteristics of winning and losing institutional investor organisations. He notes: "It is a difficult feat to keep investment managers acting together as a team and adhering to a common investment style" (*ibid*, p 322). I interpret Lofthouse's discussion as follows. Organisational success seems to be linked to good co-ordination (e.g., good investment processes, sound management) and highly professional individuals. Organisational problems seem to be linked to growth. Firstly, if assets under management start to decline, the best staff may leave – they want to be part of a winning team. Secondly, very rapid growth can cause the executives to neglect their investment role (*ibid*, p 322). In the present study, no such links between organisational aspects and growth emerged, perhaps because growth in all of the institutional investors was stable.

Organisational decision-making is a very extensive research area, and it is quite common in this literature to make comparisons with the rational deci-

sion model. This has not been done within the limits of this thesis (see also section 2.6.1).

9.2 Time lags

This section presents empirical results regarding time lags during the investment decision-making processes. Three types of time lags were identified: (a) between the reception of information and the updating of the company/industry fundamental opinion; (b) between the updated company/industry fundamental opinion and the investment decision; (c) between the investment decision and action (choice of trading strategy; see sections 6.2.2 and 8.7.1). The first two types of time lags could be linked to organisational aspects, and are dealt with below.

9.2.1 Time lags between the reception of information and the updating of fundamental opinions

Time lags were observed between the reception of information and the updating of the fundamental opinions. Previously unknown pieces of information were not immediately transformed into revised expectations. Most observations regarding this kind of time lag were linked to the reception of interim reports and closing communiqués. The time pattern around the reception of these reports could be divided into six phases, as described in table 9.1.

The description in table 9.1 shows that the financial reports gave new input that was used to update expectations. After the initial evaluation, the more detailed updating of forecasts took place. This phase included an analysis of the quarterly trends in the accounting data, and a process of individual assessment combined with an active search for more information via contact with external advisors and the quoted company. After the forecasts had been updated, and a written comment had been made, it was time to discuss the current portfolio weight of the company/share. In two of the CIO case companies, special “analyst report meetings” were held. In the other two, such meetings were not part of the procedure, and the presentations seemed to be less formal.

Table 9.1 Time pattern in connection with announcements of interim reports and closing communiqués¹

PHASE	PHASE DESCRIPTIONS
1. Preparing for the announcement	The analyst involved prepared for the announcement by reviewing his/her current expectations regarding the quoted company. This typically included an update of the market expectations by looking at the external analysts' earnings forecasts for the quarter to be reported on.
2. First response to the announcement	When the report had been announced, it was compared with the reviewed expectations. A first quick response was then made to the portfolio manager and/or the portfolio manager assistant about whether or not the report was in line with the analyst's expectations and the market expectations. This immediate evaluation sometimes seemed to trigger immediate "on the margin" action.
3. Updating the quarterly trend	The more detailed updating of forecasts began with the internal analyst putting the new quarterly figures into the historical-quarter-data part of the spreadsheet model. The current quarter figures were then compared with the historical quarter patterns. The focus here was particularly on trends in the income statement in terms of sales, margins and earnings at different levels.
4. Updating the forecast input variables	In the next step, the internal analyst's forecast input variables were updated in the spreadsheet model. The quarterly trends referred to in point 3 were an important basis for this. However, this update was normally not made until a few days after the report announcement. First of all, the analyst wanted to attend the press conference or analyst meeting. In addition, the analyst wanted to discuss the report with external analysts. There might also be questions concerning details in the published report that the analyst wanted to ask the quoted company about (see section 6.2). There were also empirical examples of institutional investors wanting to meet with the company management at this stage.
5. Producing a written comment	When the forecasts had been updated, the internal analyst wrote a comment on the basis of the financial report, including his/her updated forecasts (see also section 6.7). This written comment typically consisted of an update of the quantitative analysis (forecasts and valuation), qualitative comments regarding the company and the stock, the share price development, external analysts' forecasts, and a stock recommendation. The internal analysts seemed to want to wait for the external analysts' responses to the financial report announcement, before writing their own comment. It therefore seemed to take a few days before this was done.
6. Internal meeting	Finally, at an internal meeting the analyst presented the written report, and this was used as the basis for a discussion on the company/share. This meeting typically seemed to be held during the weeks after the financial report announcement. On the basis of these meetings, or even during these meetings, more material decisions regarding the stock were taken. In other words, should the current portfolio weight of this stock be maintained, or changed in some way?

¹ This classification has been constructed by the author on the basis of the empirical material taken together. This means that not all of the six phases were covered in all empirical observations. Furthermore, only phases 1–2 apply in the EAO case companies.

One reason why the updating of expectations took so long was that the analysts wanted to reduce their uncertainty by waiting for more qualitative information, and by observing other market participants (see also section 8.2). In particular, they wanted to attend the management's presentation of the report, and hear the external analysts' verbal comments. A second reason was that communication as such took some time. The internal analyst had to follow the internal routines for updating the company/industry fundamental opinion, and presenting it, as more than one person was involved in the investment decision-making process (organisational aspects, see also section 9.1). In the EAO case companies, updating the fundamental opinion could also take some time. They wanted to hear their external analysts' reactions, and discuss the impact of the released report on their fundamental opinion. However, as these organisations were smaller, the communication problems were also smaller. A third reason for time lags was the internal analysts' lack of time. Many of the quoted companies released reports at about the same time, and the analysts were naturally unable to do all the updates immediately. This is illustrated by the following quotation:

“I have a 5-year spreadsheet that I update after each report. When I then visit [the companies], I write down a few pages about them and then I also make a form of valuation and recommendation. AND FORECASTS TOO? Yes, I have five-year forecasts that I update as soon as an interim report arrives... well sometimes those updates just pile up. You then look quickly to see that everything is OK and then you continue with the next company.”

The priority order of updates seemed to be linked to whether, at a first glance, the report appeared to be in line with prior expectations. If it was in line with expectations, the detailed forecast updating could be postponed. The analysts' heavy workload also explained why forecast revisions seldom seemed to be made at any other time.

9.2.2 Time lags in the investment decision-making processes

Time lags sometimes occurred during the investment decision-making processes, when fundamental opinions were weighed against internal premises and market premises (see also chapter 6). These time lags primarily seemed to be linked to the management of different organisational aspects of the

investment decision-making process: internal bureaucracy, trust and internal disagreement.

Internal bureaucracy

In order to co-ordinate the individuals involved in investment decision-making, the case companies developed a number of formal or less formal routines (see also section 9.1). This internal bureaucracy caused time lags between information and action, as illustrated by the following quotation from one of the more bureaucratically organised case companies:

“We have an analysis meeting where we discuss analyses and companies, where primarily the analysts make presentations. But then we also have different investment committees for different parts and that is where the decisions are made. It is also there that you have more industry discussions, [about] their weights in the portfolios. We don’t discuss exactly that at the analysis meetings and the analysis meetings do not have decision-making authority. ARE YOU A MEMBER OF ANY SUCH COMMITTEE? No, since I am an analyst I am not a member. On the other hand, we are often called in when they want to talk to us about something in particular. They want to know what I think [about a company] and it is perhaps several months since the report. We then have a discussion and I think that compared with other [institutions], the analysts are rather involved here in the decisions that are made. I think that we seldom do something in the companies that I follow where I am not consulted in some way. Then perhaps things can happen a little differently on a short-term basis. Of course, they don’t hold meetings every day when they are considering making a change in the portfolio. Instead you set some kind of guideline, that okay, now let’s do this. Then when exactly this happens, that can take weeks and months.”*

In case companies that required meetings of the kind described in the quotation, the decision-making processes were prolonged. It could take some time before the various meetings had been held, and for decisions to be made. All of the case companies had at least one formal forum for investment decision-making. In the EAO case companies, however, the concrete equity investments were often delegated to operating people who made stock-picking decisions in less formal ways. In some of the EAO case companies, this was perceived to be very crucial. This is illustrated by the following comment made by an EAO case company interviewee:

“There are many ways of conducting asset management. You can build large organisations and have a lot of people and employees and analysts and strategists. [Institution X] has done that, but when I have spoken to those who are good there, they have said that ‘God, if only we had worked like you and [had fewer people].’ Because then you must also keep everything together. The development has also been in the direction where the ability of the brokerage firms is very dependent on them having good analyst competence. This has the effect that we are seeing a lot of good analyses in many places. We are then in quite a good position when we decide what we think ourselves and how we look at the overall situation. But if you have your own analysis function, a bit of a conflict-of-interest situation may arise if one of your own analysts has one point of view and the markets’ analysts have another view. The portfolio manager can then be squeezed somewhat only because he feels closely linked to his own organisation. We are a small organisation. We can work with very little bureaucracy. The worst are those organisations that sit in committees and make decisions once a month about which shares they should buy, and then so many things happen and everybody in the whole world has the same information at the same time. Then the portfolio manager can get a little bit stuck. Then you become more of a clerk, not a real portfolio manager.”*

There was little bureaucracy in most of the EAO case companies, and this made the decision-making processes shorter.

Dealing with insufficient trust

Insufficient trust created uncertainty, and this uncertainty often seemed to be dealt with by postponing decisions, which prolonged the decision-making processes. Insufficient trust was present when people had just joined the company, as this empirical example shows. A newly employed analyst in one of the case companies was given the responsibility for following a quoted investment company. He performed an analysis of this company, and concluded that the institution should sell its holding in this company. However, he was not sufficiently trusted, and at that point in time, the case company decided to keep the shareholding. The analyst described the case as follows:

“I remember one of the first corporate visits I made. I was at [one of the investment company’s investee companies], and I met the management there. They had an extreme acquisition strategy, it was a matter of, like, companies per month, and I had a little difficulty in understanding what the big hurry was all about. Then I

had a bit of a problem seeing the strategy with these acquisitions as well. It could be a carpet transporter in Denmark and a tobacco transporter in England and I found it difficult to see, like, the benefit of putting these into the same computer network. Because that's where the synergies are in transportation companies. The management was also, the way I saw it, absolute daredevils. I say that if you have visited the typical haulier company, there is a little rougher atmosphere. But these guys were to be sent down to smart schools in Switzerland and France. It just felt wrong when I was there. Everything was wrong. I examined all [of the investment company's investee companies] during the spring of [year X]. That was actually the first analysis I did and I presented it with this classic Boston matrix, where there were perhaps a few of these star performers, but there were many dogs, a few stray cash cows. And I felt that we should sell everything we had. WHAT WAS THE COUNTER-ARGUMENT THERE THEN, WHY DIDN'T YOU SELL? I think it was a little bit that I was entirely new and they wanted to test me. Was I right or wasn't I right, and they listened to my opinion a little bit. But I was rather green at the time and then it's very difficult to get real response to your views."

A few case companies placed a considerable amount of trust in the portfolio managers, thereby avoiding some of the bureaucracy (see section 9.1). This also shortened the decision-making processes, but it made the organisation more dependent on the portfolio manager. When this person was ill, on holiday or on a business trip, for example, the large decisions seemed to have to be postponed until after his/her return. This is illustrated by the following quotation:

"What we lack are clear limits: 'How much are we allowed to do?' We are not aware of that limit and that also has an effect in certain cases. When, for instance, the equities chief is not here, then you can't do so much. It can of course be positive on certain occasions, but often I think it's negative."

Dealing with internal disagreement

Many of the time lag observations concerned internal disagreement (see also section 9.2.2). These disagreements typically concerned fundamental opinions, and were generally dealt with in one of four ways: (a) the decision was postponed until there was a better basis, (b) the case company did nothing at all, (c) the person with formal power decided, and (d) the people involved reached a compromise. This could be illustrated by the following quotations from two of the case companies:

- “BUT THERE ARE TIMES WHEN YOU HAVE SLIGHTLY DIFFERING VIEWS? Yes, of course. It would be strange if everybody had exactly the same opinion but it is very seldom that we have diametrically opposing views and cannot agree; it’s more a matter of questioning [a particular view]. AND IF YOUR OPINIONS ARE A LITTLE APART, HOW DO YOU PROCEED THEN? Well, to take a good example, if someone comes up with a suggestion and I, for example, as chairman of this committee, am not so totally convinced, then it’s most often the case that I don’t want to bully anybody; instead I say okay, we’ll let you do it and see how it goes. IT’S NOT LIKE YOU LET IT DIE, THAT YOU DEFER THE DECISION? Yes, I suppose you can do that too. I suppose that has happened on occasions, that you think it has not been so well founded and then one has to look a little more at it, or wait and see.”*
- “DO YOU EVER DISAGREE? Yes, that happens. WHAT DO YOU DO THEN, WHO DECIDES THEN? Well, then we try to convince each other or more information is gathered. In most cases it’s not a situation where you are diametrically opposed. There may be uncertainty regarding certain issues and then you try to gather more information about it, in order to reduce the uncertainty or to convince the other party. And in the same way, you listen to others. IS IT USUALLY THE CASE THEN THAT ONE OF YOU SUCCEEDS IN CONVINCING THE OTHER? In most cases, we probably bring our varying opinions into line with each other and arrive at something. I say that it’s more a question of input from two directions: How does it look relative to the [stock] market, and there the portfolio manager may have better input; while when it is a matter relating to the industry and specific events in the company, I have the input. It is also clearly stated that the portfolio manager should not be able to run over an analyst. If we are uncertain, and this applies overall, then we usually speak to [the senior investment manager] and then it’s, like, up to him to make some kind of decision. Because I think it is better if a decision is made, a conscious decision, than to let it die out because you are in disagreement. Because then it’s some kind of passive decision-making. DO EVER THINGS GET PUT ASIDE BECAUSE OF [INTERNAL DISAGREEMENT]? Yes, I think that may have happened.”*

A concrete empirical example of internal disagreement and time lags was given in Hellman (1996). In the AGA case, the analyst argued for intrinsic valuation, while the portfolio manager argued for relative valuation, comparing with the P/E ratios of other gas companies. They could not reach an agreement, and therefore chose to do nothing at all.

A fifth way of handling internal disagreement (e) was to consciously delay implementing an investment decision (obstruction). This was observed in two of the case companies when portfolio managers received orders from above which they found unreasonable.

9.2.3 Summary of findings

The findings presented in this section could be summarised as follows:

1. Several factors, some of them organisational, contributed to time lags between the first impulse and the completed investment transaction.
2. It often took some time before institutional investors revised their fundamental opinions after receiving public information.
3. Organisational phenomena, such as formal decision-making procedures and absence of trust, could postpone buy and sell decisions.
4. Contrary opinions had delaying effects on investment decisions.
5. The choice of trading strategy and contextual factors could cause time lags between decision and transaction.

9.2.4 Comparison with prior research

Four prior studies (Finn, 1981; Gniewosz, 1990; O'Barr and Conley, 1992a; Barker, 2000) include observations and results that could be interpreted as time lags.¹ In sum, the results in the present study appear to correspond well with their findings.

A number of these could be related to time lags between information reception and updating of the fundamental opinion. Gniewosz reports that the updates of share appraisals were not carried out continuously, but at intervals, typically every quarter. Gniewosz focused on the use of the annual report, and noted that analysts did not necessarily perform detailed analyses as soon as they received them. Depending on the urgency of other work at

¹ This was also discussed in Hellman (1996).

hand, detailed analyses could be postponed, especially if the reported results were in line with expectations (1990, p 226). In the O’Barr and Conley study (1992a), one of the pension funds (IndustrialCo) was described as following a “lengthy, careful and methodical” (p 59) analysis process. The following quotation was taken from one of IndustrialCo’s equity specialists (*ibid*, p 59):

“I will hear an idea and it will flicker my interest for it, but it will have to grow on me...a lot of the ideas that I’m currently recommending are things which I’ve sat with for maybe five or six months...”

This quotation indicates a far from immediate transformation from information impulse to analyst recommendation. Barker (2000) makes a process flow chart of how the external analysts he studied typically responded to corporate results announcements (*ibid*, p 101). The time pattern described in table 9.1 shows similarities to Barker’s process flow chart, in that despite an immediate superficial response to the announcement, the forecast revision was not made until later.

Some of the observations in prior research could be related to time lags during the investment decision-making process. Finn (1981) reports signs of time lags between the point of time when the internal analysts provided a new recommendation, and the point of time when the portfolio manager acted in accordance with this recommendation (see section 2.1.1). Finn attributes these time lags to internal bureaucracy. Similarly, O’Barr and Conley (1992a) describe the decision-making process of one of the pension funds they studied (ProductCo) as very time consuming due to “the enormous demands of the administrative system” (*ibid*, pp 67–68). Furthermore, in the O’Barr and Conley study, regular and formal meetings are described as the core of the decision-making process in most of the studied pension funds (*ibid*, p 60).

10 Discussion of the empirical results

This thesis focuses on the reasons for institutional investors' investment actions on the stock market, and in particular the role of financial information about the quoted companies. Interviews and document studies linked to a large number of actual investment actions in eight large Swedish institutional investor organisations constitute the empirical basis of the thesis. This chapter summarises the main findings and the perceived contribution in relation to prior research (sections 10.1–10.2). The findings and the comparisons with prior research are described in more detail in chapters 5–9. Some possible implications of the empirical findings are discussed in section 10.3. Generalisation and validity issues are discussed in section 10.4. The chapter closes with suggestions for future research in section 10.5.

10.1 Main findings and concluding remarks

The investors' opinions about the fundamental conditions for companies and industries are central to this study of what makes institutional investors buy and sell equities. This is not surprising in the light of the enormous amounts of information produced about quoted companies, both by the companies themselves and different information intermediaries, and the fact that the institutions covered by this study were staffed by professionals with large resources with which to examine the investment objects. However, the fundamental opinion about the investment object was not the only factor determining investor action.¹ One conclusion that can be drawn from the results of this study is that the impact of fundamental opinions is restricted and reinforced by market premises and investor contexts. In other words, during equity investment decision-making processes, institutional investors weigh their opinion of the investment object fundamentals against the restrictions and opportunities prevailing in the market, and what their specific investor contexts allow them to do.

The restricting and reinforcing factors relating to the institutional investor as such, and to the market premises, meant that fundamental opinions could

¹ See section 4.4 for a description of the concept of “fundamental opinions”.

have full impact, delayed impact, reduced impact, or virtually no impact at all on investment actions.

Market premises refer to observations of share prices, trading volumes (stock liquidity) and other investors' investment actions. The market premises either restricted or reinforced action in accordance with the investors' fundamental opinions about the investment objects. Share price changes in the short-term perspective initiated or interrupted courses of action in line with fundamental opinions. Several institutions were heavily influenced by the development of the index weights in their benchmark indices when deciding which equities to buy and sell. Due to the fear of deviating significantly from the index weight, certain institutions even invested regularly in companies/equities about which they had negative fundamental opinions. Institutional investors were occasionally seen to go against other investors' opinions (contrarian behaviour), but they more often acted in accordance with them.

Aspects of the institutional investor context that influenced the decision-making process included legal conditions, portfolio strategy, the investor's own financial conditions, and organisational aspects. These contextual premises could lead to investment actions that deviated from the fundamental opinions. Furthermore, the investor context was decisive for how the institutional investors defined which stock markets, or parts of these, would be considered as investment alternatives. Typically, equity investment decisions were not made solely on the basis of opinions about individual stocks, but were decisions that concerned variables on different alternative levels within a portfolio strategy.²

With regard to institutional investors' financial conditions, the period covered by this study was characterised by cash inflows, which put pressure on the institutions to buy. In a number of cases, the alternative structure and portfolio strategy were such that equities appeared to be the only possible investment alternative. Few allowed alternatives, in combination with exter-

² The alternative levels referred to are assets, geographical areas, industries and individual stocks.

nal cash flows, could significantly reduce the impact of fundamental opinions on investment actions.

Fundamental opinions often had more impact on buy decisions than on sell decisions, because the contextual premises more often restricted sell decisions. Sell decisions – more often than buy decisions – are influenced by contextual premises such as legal requirements and the institutional investor's financial position. The reluctance to realise losses on equity investments reduced the importance of fundamental opinions in connection with sell decisions. Buy decisions tended to be more unconditional than sell decisions, leaving more room for fundamental opinions.

The institutional investors' fundamental opinions about particular companies/equities were often developed as a quantitative analysis, in terms of forecasts and an equity valuation, adjusted for a number of non-quantified pros and cons. Assessments of managers and their personalities constituted the most common non-quantified matter of judgement. These assessments not only concerned what the manager did inside the company, but also how s/he related to the analysts.

Non-public information played an essential role in forming the fundamental opinions about companies/equities. In addition, this information could help trigger equity investment actions.

The information sources used by the institutional investors were found to vary. Some primarily based their opinions on their internal analysts' original analysis of the quoted companies. Others primarily relied on external advisors.

Relative valuation was common, i.e., valuation of a stock in relation to how other, in some respects similar, stocks were priced on the stock market. In the relative valuations, horizon values were usually not explicitly considered. Both intrinsic and relative valuation was found to be used by institutional investors who had internal analysts, while relative valuation was most widely used by institutional investors without internal analysts.

The institutional investors did not develop their fundamental opinions independently of other stock market participants. For institutions without internal analysts, their own fundamental opinions were highly influenced by the prevailing market opinions. Their own opinion was often defined in direct relation to the market opinion. External advisors played an important role in describing the prevailing market opinions. For institutions with internal analysts, the prevailing market opinions served as reference points for their own fundamental opinions, but were not the deciding factors. Furthermore, both types of institutional investors often chose valuation methods that did not deviate too much from what was common on the stock market. For this reason, models that allowed for simple comparisons across equities had considerable influence, especially in the institutions that did not have internal analysts. Finally, the belief that other market participants did not make quantified adjustments of accounting figures was one reason why internal analysts refrained from making such adjustments.

Other investors' behaviour also affected how uncertainty associated with the investments was dealt with. The competition among investors made index-related goals important. Several institutional investors implemented a far-reaching diversification of their portfolios in accordance with the principle that the portfolio should not deviate significantly from the stock market index. Accordingly, risks were defined in relation to the index. Index-linked bonus systems, used in some of the institutional investor organisations, reinforced index-related views of risk.

Many of the measures taken by the institutional investors aimed to cope with, and reduce, the uncertainty associated with equity investments. These measures can be discussed on the basis of a description of the decision-making process (figure 10.1).

Available alternatives	Initiation of decision	Information collection	Evaluation of alternatives	Decision/Action
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Figure 10.1 The decision-making process

A very basic decision-making activity is to define the investment alternatives available. At a very early stage, the institutional investors tended to eliminate quoted companies where the financial crisis risk was considered to be non-negligible. Accounting data appeared to constitute a basis for such judgements.

During the investment decision-making processes, the institutional investors had to handle the uncertainty surrounding the quoted companies and their shares. From time to time, uncertainty increased: an important order was lost, production problems arose, a certain drug had negative side-effects, and so on. In such situations, the institutional investors tended to postpone decisions, search for more information, and wait for further information. The trustworthiness of different information sources played an important role in this context, and the institutional investors paid greater attention to the sources they perceived to be particularly trustworthy.

Required rates of return were often referred to in connection with the quantified analysis of equities, but several factors made it difficult to apply them in a consistent manner: the qualitative nature of non-public information, the dependence on other market participants, the perceived lack of alternatives other than equities, and organisational aspects. Uncertainty regarding the forecasts was also dealt with by using non-quantified information as a complement, and by comparing with the observable opinions of other market participants.

When implementing their investment decisions, the institutional investors often preferred to spread out buy and sell transactions in smaller lots over a long period of time, instead of making a few large transactions during a short period of time. This was a way of reducing the risk of bad timing and undesired price impact. For the staff involved, this strategy could save them from being accused of bad timing.

A basic observation is that institutional investors are organisations, not individuals. The decisions to buy, hold or sell stocks are made within organisational contexts, and unsurprisingly, several general organisational phenomena affected how the institutional investors' dealt with uncertainty and made use of information. In addition to its investment analysis functions, infor-

mation had argumentation functions within the institutional investor organisations. Information was simplified, and specific aspects were emphasised to support the opinions of individual staff members.

Several factors, some of them organisational, contributed to time lags between the first impulse and the completed investment transaction. It often took some time before institutional investors revised their fundamental opinions after receiving public information. Organisational phenomena, such as formal decision-making procedures and absence of trust, could postpone buy and sell decisions. Furthermore, contrary opinions also had delaying effects on investment decisions.

10.2 Contribution of this study

In each of the chapters reporting empirical results (chapters 5–9), a comparison has been made between the empirical results and the prior research in the relevant area. In summary, the results reported in this study are largely in line with the findings of other researchers, and few direct contradictions have emerged. Many prior studies have, from different standpoints, pointed at the great importance of fundamental factors (see sections 2.1–2.3 and 2.5), and some have discussed the role of contextual aspects (see section 2.1). The recent herding literature emphasises the impact of market premises on investors' opinions and behaviours (section 2.6.3). Many studies examine the valuation methods used in practice (section 2.2), and others study the use of accounting information for investment analysis purposes (sections 2.1–2.4). Certain ways of dealing with uncertainty are addressed in the empirical literature (sections 2.1, 2.2.4, 2.3.4, 2.5.1, and 2.6.1).

One contribution of the present study is that it provides an empirical description of the reasons for institutional equity investor action that is more coherent and includes more dimensions than prior studies. In at least three ways, the present study also goes further and deeper than prior studies: (i) how action based on fundamental opinions is restricted or reinforced by investor contexts and market premises, (ii) the role of valuation models and quantitative analysis in comparison with qualitative judgements, and (iii) how uncertainty is dealt with during investment decision-making processes.

10.3 Possible implications of this study

The empirical findings of this thesis can serve as a basis for reflections at different levels. What are the implications for staff in institutional investor organisations, for institutional investor organisations, for the stock market as a whole, and for the quoted companies? Many of the empirical findings naturally lead to reflections at the stock market level.³ If some of the results of this study also applied to other investors, how would this affect the stock price determination process? The starting point for a discussion of such implications should be prior research on the link between individual investors, information, and the share price determination process.

A distinction must be made between (a) each investor's gathering and processing of information, and forming of expectations, which are private activities, and (b) the interaction of many investors who might have different information, different expectations, and different motives for action. In capital markets research, the extent to which information is fully reflected in stock prices is known as market efficiency (Beaver, 1989, p 33). According to Beaver (*ibid*, p 130), a securities market is said to be efficient with respect to an information system if and only if the prices act *as if* everyone observes the signals from the information system. Much of the behavioural finance research has used market efficiency as a benchmark. Market efficiency anomalies have been identified and attributed to various behavioural phenomena at the disaggregated level (Barberis *et al*, 1998; Daniel *et al*; 1998). Two families of market efficiency anomalies in the behavioural finance literature are, on the one hand, overreaction of stock prices to a series of good or bad news and, on the other hand, underreactions of stock prices to news such as earnings announcements (see section 2.6.4). One issue of debate concerns the speed with which prices adjust to information, where the behavioural finance literature challenges the assumption of a very quick adjustment (Fama, 1998, p 284).

Both the market efficiency concept and the behavioural research that challenges it focus on the relationship between the disaggregated level (infor-

³ The empirical study in this thesis is conducted at the disaggregated level, and therefore the objectives and findings are limited to this level. It should therefore be emphasised that the discussion in this section is speculative.

mation, investors) and the determination of stock prices. The present study does not include any attempts to capture the effects of investor interaction on share prices. It only includes results pertaining to the disaggregated level. However, the variables found to be important at this level, could hopefully complement the prevailing theoretical models of the relationship between investors, information and the determination of stock prices, and be beneficial for future model development. First of all, I would like to emphasise the results regarding time lags and non-public information:

- Time lags were found between information impulses and completed investment transactions; these were partly due to organisational factors. This result could be relevant to the market efficiency literature.
- Non-public information played an essential role in forming the fundamental opinions about companies/equities. In addition, this information could help trigger equity investment actions. This would also appear relevant to the market efficiency literature.

Secondly, I would like to highlight the variables and observations that might be useful for the further development of theoretical models focusing on the relationship between company fundamentals and stock prices:

- The investor context may reduce the impact of fundamental opinions on investors' actions on the stock market.
- The institutional investors in this study did not take action independently of other investors. Furthermore, they did not develop their fundamental opinions independently of other market participants; to varying extents they adjusted to other market participants' expectations, equity valuation methods and ways of using accounting figures.

Thirdly, on the basis of the empirical results of the present study, it may be questioned whether inadequate accounting treatments of investments in intangible assets, or inferior equity valuation methods, are the primary reasons for the increasing discrepancy between accounting values and capital market values (see the discussion in section 1.1). The results of this study

indicate that this increasing discrepancy could be linked to the investors' reasons for action.

Fourthly, the empirical results of this study may also provide some insight into the paradox that a very long horizon is often needed to motivate the observed stock prices, while at the same time the stock market seems to react to short-term variations in the quoted companies. If investors are of the opinion that certain stock prices are not possible to motivate on the basis of fundamental analysis, but still invest in these stocks on the basis of other types of judgements, this may help to explain the paradox. Even highly experienced investment managers seemed to ask themselves: "Why should I know better than all the others?" At the same time, some institutional investors' only investment alternative was Swedish equities. The share appraisals can then become relative rather than intrinsic. This reasoning can also be linked to Runsten (1998). Applying a different methodology, Runsten's results suggested that stock prices might be detached from fundamentals during boom periods (see section 2.5.2). The period studied in this thesis could perhaps be described as a boom period (the years following the depreciation of the Swedish krona in November 1992). Runsten's study is one of many studies in this area, but one of few that are based on Swedish data for a long period.

10.4 Generalisation and validity

10.4.1 Generalisation

Alvesson and Skjöldberg (1994, p 40) argue that the results of a qualitative study can be generalised to a certain possible domain, that is, the maximum amount of empirical phenomena that a theory can concern (see also Tsoukas, 1989). The relevant domain in the present study could be described as investment decision-making in large Swedish institutional investors that could be expected to follow a strict financial logic (see section 1.1). I believe that it is reasonable to generalise to this domain. Firstly, the institutional investors were selected to capture as many aspects of institutional investor decision-making as possible. Secondly, the eight institutional investors in this study represented a significant group of large Swedish insti-

tutional investors. According to the estimations made in Appendix B, they accounted for about 13 per cent of the total market value on the Stockholm Stock Exchange, and about 14 per cent of the total turnover,. Thirdly, the data collection in these organisations was relatively extensive, covering both document studies and 42 interviews with 17 financial analysts, 14 portfolio managers, six senior officers, two portfolio manager assistants, two risk managers, and one chief economist.

Lukka and Kasanen (1995) argue that high quality case studies may produce credible generalizable results, but that contextual and constructive generalisation rhetoric rather than statistical generalisation rhetoric is needed. Contextual generalisation rhetoric rests on the convincing linkage of, on the one hand, relevant history, institutions, and markets around the case to, on the other hand, the argumentation net of the study (*ibid*, p 85). The empirical results in the present study are largely about linkages between actual equity investment actions and the context in which the institutional investors make equity investment decisions.

10.4.2 Generalisation to other time periods

The results of the present study refer to a number of years following the depreciation of the Swedish krona beginning in November 1992. An interesting issue, with regard to generalisation, concerns the extent to which the empirical results could be expected to pertain to the present and the future. It should be emphasised that the discussion below is speculative.

Market capitalisation and turnover on the Stockholm Stock Exchange have increased dramatically during the late 1990s.⁴ There have also been large inflows of money to institutional investors during these years, and the fund management industry has grown. Furthermore, interest-bearing securities seem to have lost some of their attractiveness as interest rates have decreased. The period examined in this study was described as a boom period. However, given the development that has taken place in Sweden since 1995 this boom seems rather modest. Yet, in the light of this development, I believe that the contextual and market forces observed in the present study,

⁴ In 1999, the Stockholm Stock Exchange changed its name to OM Stockholm Exchange.

which in many cases led the institutional investors to act in ways that did not fully accord with their fundamental opinions, may very well have become even stronger during the late 1990s.

A discussion of the extent to which the empirical results of this study will also pertain to the future requires a deeper analysis of the factors that explain the market premises and the contextual premises. I believe a key factor here is the character of the relationship between the institutional investor and its principals (see section 6.5). The institutional investor organisations act, to a varying extent, on a competitive market. The present study, on the one hand, included institutional investors that directly competed with other financial companies (i.e., fund management companies, investment companies, life insurance companies). They were under pressure to deliver results, which their principals and the media kept a keen eye on. On the other hand, certain institutional investor did not compete in this sense (i.e., foundations, non-life insurance, money management monopolies), but their principals could still compare the achieved performance with that of other institutional investors. These institutional investors were to a greater extent able to formulate their strategies on their own terms.

On the basis of these observations, I suggest that the competition among institutional investors is one of the important reasons for index-oriented comparisons and the dependence on other market participants. If that is the case, market premises could be expected to restrict and reinforce the impact of fundamental opinions on equity investment actions also in the future, and perhaps even stronger than before if competition between institutional investors were to increase.

With regard to investor contexts, certain premises seem more stable while others can be expected to vary more over time. Again, the relationship between the institutional investor and its principals is of importance. Competition between the institutions could be expected to force them to more clearly communicate how they organise their investment decision-making, and what portfolio strategies they adopt, in order to gain competitive advantages. This could possibly lead to the portfolio strategies becoming narrower, in the sense that fewer alternatives become available (e.g., special internet funds, funds for people born in the 1950s). In turn, if an institution

with few alternatives receives large external cash inflows, it may have to deviate from its fundamental opinions. External cash flows originating from the principals could be expected to vary over time. The legal conditions pertaining to different types of institutional investors could be expected to influence the institutions' degrees of freedom to act also in the future, even though the legal conditions will change over time.

In sum, I believe the major factors that explain the causes of institutional investors' actions in this study, will be valid also in the future. That is, I believe institutional investors will continue to weigh their opinions of the investment object fundamentals against the restrictions and opportunities prevailing in the market, and what their specific investor contexts allow them to do. However, I also expect that the impact of market premises and investor contexts on the investment decision-making will vary over time, as described in the above paragraphs.

10.4.3 Generalisation to institutional investors from other countries

In a ranking of the world's stock exchanges in 1998, the Stockholm Stock Exchange was the fifteenth largest with regard to turnover, and eighteenth with regard to total market value. Still, the turnover was only a few per cent of that of the US stock exchanges, NYSE and NASDAQ, and about ten per cent of Paris and London.⁵ The results of the present study only refer to Swedish institutional investors, and an interesting issue with regard to generalisation, concerns the extent to which the empirical results could be expected to pertain to institutional investors in other countries. It should be emphasised that the discussion below is speculative.

Market premises could be expected to be of importance also in other countries, although their degree of impact may differ from what was observed in this study. In line with the reasoning in the previous section, increased competition among institutional investors could be expected to increase the use of index-oriented and relative goal formulations, and the demands for achieving short-term goals. This implies that in countries with tougher com-

⁵ Source: Stockholm Stock Exchange, Fact book 1999 (partly in Swedish).

petition among money managers, market premises could be expected to restrict and reinforce the impact of fundamental opinions on equity investment actions even more than in Sweden.

Investor contexts could be expected to be of importance also in other countries, although their degree of impact may differ from what was observed in this study. Firstly, the legal conditions in other countries could be expected to restrict the impact of fundamental opinions on investment decisions, although the rules will differ somewhat from those that apply in Sweden. Secondly, the institutional investor's financial conditions (the external cash flows) will be a potentially important factor also in other countries. Thirdly, in the previous section the relationship between institutional investors and their principals was emphasised, particularly the importance of competition among investors. Following the same line of reasoning, a higher degree of competition in a country might increase the pressure on institutional investors to gain competitive advantages by having, for example, unique working methods or portfolio strategies. This could lead to the portfolio strategies becoming narrower, in that fewer alternatives would become available. In turn, fewer available alternatives could restrict the impact of fundamental opinions on the investment decisions. Competition among institutional investors in countries that are larger than Sweden could be expected to be greater, but this will also depend on, for example, regulations and saving patterns.

Finally, the way fundamental opinions about investment objects are developed may differ between Sweden and other countries due to, for example, differences regarding accounting, disclosure levels, and traditions regarding financial analysis and equity valuation.

10.4.4 Validity

According to Arbnor and Bjerke (1994, p 253), two important intersubjectivity aspects are scientific process validation and scientific result validation:

“...the *scientific process validation* should...occur if the knowledge producer...clearly shows on what grounds different interpretation patterns and actions have developed. That is, the *logic* and *plausibility* in the development of

these patterns. In addition, the subjective interpretation should be clear. That is, the *scientific concepts* shall clearly show to be *subjectively anchored*. The *scientific results validation* is about how the results *relate to* existing knowledge. That is, if the results can be of any use in the development of the particular branch of science.”*

With respect to scientific process validation, considerable emphasis was placed on clearly showing how the empirical data were collected, and how the empirical data was interpreted in order to obtain the results (chapters 3 and 4). In particular, the descriptions in chapter 4 should enable other researchers to judge whether the interpretations are logical and plausible. With respect to scientific result validation, the results have been related to existing knowledge (chapters 5-9), and they appear relevant to the literature that relates information to investment action.

10.5 Suggestions for future research

During the work on this thesis, a number of different ideas about further research have naturally been formed. On the basis of these ideas, I would like to make three suggestions for future research.

The present study has been a rather detailed study of only eight Swedish institutional investors. A possible extension would be to test the results of this study on a larger sample of investors. In particular, it would be interesting to compare Swedish institutional investors with institutional investors from other countries. It would also be interesting to compare institutional investors with other types of investors. For example, to what extent can the schematic model of fundamental opinions, contextual premises and market premises be used to explain the investment actions of private investors?

The inductive methodological approach is an important characteristic of the present study. On the one hand, this means letting data speak, and that observations are not forced into a predetermined theoretical perspective. On the other hand, this means that there is room for applying particular theoretical perspectives on the results of this study. Within capital markets research and behavioural finance research, the results of the study could hopefully be beneficial for future model developments and empirical considera-

tions. Institutional theory is another theoretical perspective that may possibly be applied to discuss the results and observations in the present study. This includes, for example, the isomorphism arguments put forward by DiMaggio and Powell (1983) regarding why companies tend to be so similar.

A third suggestion is to conduct further research on the role of incentive systems in institutional investor organisations. On the one hand, these organisations will often have clear and measurable goals regarding performance. On the other hand, analysts and portfolio managers will have goals of their own with respect to, for example, remuneration and professional development. Some interesting issues concern the characteristics of the incentive systems that are in use, the design and use of bonus systems, and the impact of different incentive systems on investment behaviour.

Appendix A

Prior empirical research at the disaggregated level: Basic data

Study	Objective	Study object (respondents)	Sample size	Response rate	Data collection method
Clarkson (1962)	To study the process of selecting equities to a portfolio.	A trust-investment officer at a bank (US).	1	Not applicable	Verbal protocol analysis, computer simulation
Möller (1962)	To investigate different aspects of equity investment decision processes, especially the dealing with uncertainty.	Representatives from the banks and stockbroking firms that were members of the Stockholm Stock Exchange (Sweden).	16	80%	Personal interviews
Lundman (1967)	To describe how stock specialists perceive their judgement situation, what information they use and how that information is gathered.	Stock specialists on the Swedish stock market (4 analyst experts, 8 stock market commentators, 3 stockbrokers, 11 investment advisors, 3 active private investors (Sweden).	30	Not applicable	Personal interviews
Lundman (1969)	To survey how expectations about future economic consequences of shareholdings are established, by studying the respondents' informational behaviour and transactions behaviour.	(1) Private persons who owned ordinary shares or units in a unit trust (Sweden). (2) Private persons who did <u>not</u> own ordinary shares or units in a mutual fund (Sweden). The sample was taken from a different, more extensive study, conducted by the National Central Bureau of Statistics (SCB).	(1) 480 (2) 202	95%	Telephone interviews (97%) and personal interviews (3%)
Bing (1971)	To obtain specific information regarding the respondents' techniques and implied theories of equity appraisal.	Decision-making professionals in leading financial institutions (15 banks; 11 mutual funds and investment consultant firms; 8 foundations, universities, insurance companies and pension funds) (US).	Not specified. Number of replies = 34	Not specified.	Postal questionnaires
Mason (1971)	To study the importance of different information sources to investors and stockbrokers.	24 investing institutions and 18 stockbrokers (UK). The functions of the persons representing the institutional investors are uncertain.	42	Not reported	Postal questionnaire
Slovic <i>et al</i> (1972)	To study the use of eight pre-specified information cues for the selection of equities.	13 stock brokers and five MBA students (US).	18	Not applicable	Computer simulation based on the respondents' judgements
Baker and Haslem (1973)	To study the respondents' information needs and to identify important sources of information used by the respondents in their analyses of common stock.	Individual investors in common stock. The sample was drawn from the customer lists of five stock brokerage firms (US).	851	52.4%	Postal questionnaires
Buzby (1974)	To measure the relative importance and/or the extent of disclosure of selected types of financial and non-financial information in annual reports.	Professional financial analysts (members of FAF, the Financial Analysts Federation). An attempt was made to omit analysts who were not engaged in equity valuation (US).	Pilot study: 32; main study: 144 (131 usable)	Pilot study: 21.3%; main study: 28.8% (26.2% usable)	Postal questionnaires
Epstein (1975)	To study the respondents' use of information in annual reports.	Individual shareholders holding at least 100 shares of one company (US).	432	Unknown	Postal questionnaires

Study	Objective	Study object (respondents)	Sample size	Response rate	Data collection method
Baker <i>et al</i> (1977)	To provide cross-national data on information needs by analysing those of specific investor groups in the United States and Australia.	Individual investors (US: sampled from the active customer files of five anonymous Washington D.C. area brokerage firms; Australia: sampled from two "investor groups" including investors who actively evaluate and trade common shares) (US, Australia).	US: 851; Australia: 476	US: 52.4%; Australia: 46.4%	Postal questionnaire
Belkaoui <i>et al</i> (1977)	To identify specific differences in the perception of accounting information by respondents in different countries.	Financial analysts (members of FAF or EFFA, the European Federation of Financial Analysts) (US, Canada, Europe).	320	45.7%	Postal questionnaires
Benjamin and Stanga (1977)	To compare the perceived informational needs of two groups of respondents.	207 professional financial analysts (members of ICCFA, the Institute of Chartered Financial Analysts) and 208 commercial bank loan officers (UK).	415	34.6%	Postal questionnaires
Chenhall and Juchau (1977)	(1) To test the relative importance and usefulness of company reports information, and (2) to identify what information is regarded as important input to the respondents' decision models.	Individuals belonging to either of two "investor interest groups": financial analysts and stockbrokers (Australia).	476	46.4%	Postal questionnaires
Lee and Tweedie (1977)	(1) To study what sources of information the respondents read, and the thoroughness of such reading; (2) Whether the respondents believe they understand accounting information, and find it relevant to their investment decisions; (3) Whether the respondents in reality understand accounting information.	Private shareholders (Pilot study: shareholders in a medium-sized public company; Main study: shareholders in one of the largest companies in the UK) (UK).	Pilot study = 1,594; Main study = 2,002	Pilot study = 23.5% Main study = 15.7%	Pilot study: postal questionnaire; Main study: interview questionnaire
Ebert and Kruse (1978)	To bootstrap the judgements made when estimating the returns of a number of securities on the basis of 22 prespecified information cues.	Security analysts (US).	5	Not applicable	Computer simulation based on the respondents' judgements
Firth (1978)	To study the perceived importance of disclosure of individual items in annual reports.	Interest parties in the annual report (250 financial directors; 250 qualified accountants; 130 loan officers; and 120 financial analysts working for stockbrokers and investment institutions (UK).	302	40.3% (Financial analysts: 38.3%)	Postal questionnaire
Winfield (1978)	To study the importance of different information sources and information items to investors	Individual shareholders of a Western Australian company (Australia).	319	38.0%	Postal questionnaire
Abdel-khalik and Keller (1979)	To test the functional fixation hypothesis with respect to the distinction between earnings and cash flows in equity valuation.	Professional analysts (29 bank investment officers and 32 security analysts in brokerage houses and insurance companies.	61	59% (42% usable responses)	Postal questionnaire; experimental design
Firth (1979)	To study the relative importance of different information items in annual reports.	Financial analysts (UK).	46	38.3%	Postal questionnaire

Study	Objective	Study object (respondents)	Sample size	Response rate	Data collection method
Most and Chang (1979)	To study the use and usefulness of annual financial statements.	215 individual investors (from the mailing list of a brokerage firm); 172 institutional investors and 167 financial analysts (selected from various national directories) (US). The functions of the persons representing the institutional investors are uncertain.	554	27.7% (Institutional investors: 34.5%; Financial analysts: 33.3%)	Postal questionnaire
Govindarajan (1980)	To study security analysts' utilisation of earnings and cash flow information.	Transcripts containing analyses performed by security analyst firms.	976 transcripts	Not applicable	Content analysis of analyst reports
Anderson (1981)	To investigate the respondents' investment objectives; information sources; need for additional information; whether they read and find annual reports useful.	Institutional investors (selected from the share registers of 15 companies) (Australia). The functions of the persons representing the institutional investors are uncertain.	188	63.1%	Postal questionnaires
Finn (1981)	To develop, and test, an evaluation system regarding the internal processes involved in the management of equity portfolios.	A major Australian institutional investment fund (Australia).	1	Not applicable	Case study including statistical analysis of forecasts, and some interviews and document analysis (not specified)
Lee and Tweedie (1981)	To study what sources of information the respondents read, whether they understand the information, and whether they find it relevant to their investment decisions.	136 people working for 79 different institutional investors (senior investment managers or senior investment analysts) and 95 people working for 61 different stockbroking firms (senior analysts or partners) (UK).	231	40%	Interview questionnaires
Chang, Most and Brain (1983)	To study the usefulness of financial statements for investment decisions.	The questionnaire was sent to 4,000 individual investors, 900 institutional investors (investment managers), and 900 financial analysts (US, UK and New Zealand).	Not specified.	Not specified.	Postal questionnaires
Arnold and Moizer (1984)	To provide a broad description of the procedures used by the respondents to appraise ordinary shares.	Investment analysts (465 members of the UK section of EFA and 40 non-members employed by large stockbroking firms (UK).	304	60.2% (40% usable replies)	Postal questionnaire; Pre-study based on interviews
Arnold <i>et al</i> (1984)	To describe the procedures used by the respondents to appraise ordinary shares, and to evaluate differences between the two respondent groups.	Investment analysts. 304 from UK (see Arnold and Moizer, 1984) and 155 from US (members of FAF) (UK, US).	459	UK: 60.2% (40% usable replies); US: 38.8%.	Postal questionnaire
Biggs (1984)	To study the information search behaviour employed in assessments of corporate earning power	Financial analysts (US).	11	Not applicable	Verbal protocol analysis
Chugh and Meador (1984)	To study the relative importance of different factors used for stock valuation; the relevance of companies' long-term plans to stock valuation, and the perceived quality of company information.	Financial Analysts (230 members of Boston Security Analysts Society and 170 members of FAF) (US).	400	20%	Postal questionnaire

Study	Objective	Study object (respondents)	Sample size	Response rate	Data collection method
Frishkoff <i>et al</i> (1984)	To compare the actual use of accounting information by financial analysts in performing a real analysis with the importance attached to particular disclosures in survey research.	Analysts described as buy-side generalists (US).	12	Not applicable	Verbal protocol analysis
Moizer and Arnold (1984)	To compare the equity share analysis procedures of portfolio managers and information intermediaries.	Investment analysts (92 portfolio managers and 110 information intermediaries) (UK). Sample: see Arnold and Moizer (1984).	304	60.2% (40% usable replies)	Postal questionnaire
The Financial Accounting Foundation (1985)	To find out what the respondents think of the work and procedures of the FASB.	Leaders of institutions affected by FASB standards: 41 institutional investors, 111 CEOs, 79 CFOs, 76 accounting firm partners, 38 accounting scholars, 61 bank lending officers and 17 financial news media representatives (US). The functions of the persons representing the institutional investors are uncertain.	451	Not specified	Interview questionnaire
Hedlund <i>et al</i> (1985), Hägg and Hörmell (1985)	Objectives concerning ownership strategy and exit-voice behaviour. To study the respondents' competence and how they collect information about the companies they own.	Institutional shareholders (Sweden). The functions of the persons representing the institutional investors are uncertain.	Pilot study = 15 Main study = 100	Main study = 74.6%	Pilot study: interviews; Main study: postal questionnaires
Day (1986)	To study the usefulness of information contained in annual reports to investment analysts, and investment analysts' forecasting processes.	Analysts.	15	Not applicable	Verbal protocol analysis followed by follow-up interviews
Bouwman <i>et al</i> (1987)	To examine the decision-making processes of professional financial analysts who are screening prospective investments.	Same as Frishkoff <i>et al</i> (1984).	12	Not applicable	Verbal protocol analysis
Mear and Firth (1987a)	To study analysts' self-insight ability.	Professional security analysts, portfolio managers, and stockbrokers drawn from a wide variety of financial institutions throughout New Zealand.	38	Not applicable	Experiment
Mear and Firth (1987b)	To study the accuracy of analysts' security returns predictions.	Same as Mear and Firth (1987a).	38	Not applicable	Experiment
Stanford Research Institute (1987)	To study the respondents' information needs and their attitudes towards the annual report as a source of investment information.	Individual investors and professional investors (28 personal interviews and 312 telephone interviews with analysts, portfolio managers and stockbrokers; sample drawn from industry yearbooks) (US).	712 (interviews continued until a specific quota was met).	Not applicable	Personal interviews and telephone interviews
Anderson (1988)	To study what information that is useful to whom in a securities valuation context.	Subjects currently involved in the performance of investment analysis. Four were professionals and three were non-professionals (US).	7	Not applicable	Experiment
Mear and Firth (1988)	To test the relevance of accounting information and other market-related information in a risk assessment task.	Same as Mear and Firth (1987a).	38	Not applicable	Experiment

Study	Objective	Study object (respondents)	Sample size	Response rate	Data collection method
Moser (1989)	To examine the effect on investors' predictive judgements of two psychological factors: "output interference" and "availability".	Investors from seven investment clubs (US).	58	Not applicable	Experiment
Carter and Van Auken (1990)	To study the use of different security analysis and portfolio management techniques.	Investment managers in the investment, investment banking, investment management, and bank trust industries.	185	20.2%	Postal questionnaire
Gniewosz (1990)	To investigate the use of information in the share investment decision processes of an institutional investor.	One of the leading Australian institutional share investors (Australia).	1	Not applicable	Case study involving direct observation, document analysis and retrospective verbal protocol analysis
Mear and Firth (1990)	To investigate the characteristics and properties of financial analyst judgement in a portfolio decision context.	Same as Mear and Firth (1987a).	38	Not applicable	Experiment
Choi and Levich (1991)	To determine whether, and to what extent, differences in accounting principles, financial disclosure, and auditing practices affect the measurement of different users' decision variables, and their financial decisions.	Institutions that prepare or read accounting statements (17 institutional investors, 15 corporate issuers, 8 investment underwriters, 8 regulators, and 3 rating agencies) spread across five different countries (USA, UK, Switzerland, Germany, and Japan).	51	Not applicable	Personal interviews
Bréton <i>et al</i> (1992)	To study what investment analysts consider in evaluating equities.	Stockbroker circulars from 5 different firms, equally distributed across buy, hold and sell recommendations (UK).	105	Not applicable	Content analysis of documents
O'Barr and Conley (1992a)	To examine investment decisions on the basis of the influence of fund history, the management of personal responsibility, the maintenance of personal relations, the law, differing cultural environments, language, and global economy.	Large pension funds that the researchers believed would differ in terms of investment philosophy, use of outside money managers, and corporate governance issues. Three were state pension funds and six were private funds (US).	9 (5 of the cases were described in the report)	Not applicable	Case studies performed by two anthropologists
Olbert (1992, 1994)	To study what valuation factors and information sources the respondents regard as important to stock valuation. Objectives regarding industry-specific factors and international comparisons.	Financial analysts (members of SFF, the Swedish Financial Analysts Federation) (Sweden).	273	74% (42% usable replies)	Postal questionnaire
Vergoosen (1992, 1993)	To investigate the respondents' use and perceived importance of annual reports.	Financial analysts (members of the Dutch Association of Investment Analysts) (Netherlands).	205	44.5% (43% usable)	Postal questionnaire
Epstein and Pava (1993)	To study the usefulness of the annual report to shareholders.	Shareholders owning at least 100 shares of one stock (US).	246 (pilot study: 86)	10.4%	Postal questionnaire
Pike <i>et al</i> (1993)	To examine changes compared to Arnold and Moizer (1984) and to compare valuation approaches, goals and information sources of UK and German analysts.	Equity analysts. A random sample of stockbroking firms was contacted by telephone, and questionnaires were sent to the analysts at the firms who agreed to participate (UK: 53 firms; Germany: 32 firms). (UK and Germany).	139	UK: 51.1%; Germany: 52.2%	Postal questionnaire

Study	Objective	Study object (respondents)	Sample size	Response rate	Data collection method
Bréton <i>et al</i> (1994)	To study investment analysts' consistency in their use of accounting information.	Stockbrokers' circulars from five different London-based stock broking firms (UK).	75	Not applicable	Content analysis of documents
Grinyer <i>et al</i> (1994)	To explore the potential relationships between the reporting of earnings figures and managers' expenditure decisions on "revenue investments".	Finance Directors of the top 1000 UK industrial companies.	246	25%	Postal questionnaire
Previts <i>et al</i> (1994)	To assess the information needs of sell-side financial analysts.	Sell-side analyst company reports.	479 reports	Not applicable	Content analysis of documents
Vergoossen (1994)	To examine whether accounting changes affect the judgements of investment analysts.	Analyst reports (including a sample of articles from a business newspaper) regarding Dutch quoted companies that had made accounting method changes.	46	Not applicable	Document analysis
Bence <i>et al</i> (1995)	To assess the degree of similarity in the use of information sources between and within two groups of sophisticated users.	Investment analysts working for stockbrokers (21) and institutional investors (12). These were selected on the grounds that they all followed a particular large listed UK company (UK).	33	Not applicable	Personal interviews
Berry and Waring (1995)	To describe an empirical study of the bank lending process (reported originally in Berry <i>et al</i> , 1993), and to analyse the empirical results from the perspective of a would-be designer of financial statements.	Loan applicants and bank loan officers, who almost all of them belonged to one major bank (UK).	30 bank loan officers	Not applicable	Interviews and diaries with follow-up interviews
Bouwman <i>et al</i> (1995)	To study information use in the investment screening decision – the first phase of financial analysis.	Same as Frishkoff <i>et al</i> (1984).	12	Not applicable	Verbal protocol analysis
Bréton and Taffler (1995)	To investigate the effect of window dressing on stockbroking analysts' evaluations of company accounts figures.	Analysts from 5 different stock broking firms (12 from each firm) (UK).	60	Not applicable	Experiment based on company cases
Demirag (1995)	Investigate Group Finance Directors' perceived pressures from capital markets in the UK.	Group Financial Directors (UK).	110	57% (43% usable replies)	Postal questionnaire
Holland (1995)	To throw light on the corporate governance role that financial institutions play in their portfolio companies.	Fund directors and managers in UK financial institutions.	27	Not applicable	Personal interviews
Mitchell <i>et al</i> (1995)	To explore the venture capitalist's demand for accounting information. Focus on the individual practices of investors in obtaining and processing information as a basis for investment decisions.	A random sample from a comprehensive list of active venture capital investors (UK).	20	Not applicable	Personal interviews
Marston (1996)	To investigate the way in which companies organise and carry out their programme of investor relations.	Large quoted UK companies. The respondents were finance directors in such companies (UK).	337	61.6%	Postal questionnaire
Schatke and Vergoossen (1996)	To study the usefulness of accounting information regarding Philips during a turbulent period.	Financial reports, mass media documents, analyst reports (Netherlands).	Not applicable	Not applicable	Case study based on written documents
Schwartz and Steil (1996)	To study the trading practices and preferences of European institutional investors	Large European institutional fund managers (Chief financial officers and head equity traders).	400	15%	Postal questionnaire

Study	Objective	Study object (respondents)	Sample size	Response rate	Data collection method
Williams <i>et al</i> (1996)	To examine the role that job function plays in the type and importance of information used by financial analysts in revising a forecast of earnings per share.	A random sample of financial analysts from a list provided by a major professional organisation of investment practitioners (USA).	370	18.5%	Postal questionnaire
Wright and Robbie (1996)	To add to the understanding of venture capitalists' investment decision-making behaviour.	Chief executives or senior colleagues of the venture capital firms with whom the Centre for Management Buyout Research has regular contact through its buyout and buy-in surveys.	66	57.9%	Postal questionnaire
Bartlett and Chandler (1997)	To re-visit and re-test the Lee and Tweedie (1977) approach in a modern day setting.	A sample of UK private shareholders from the shareholder registers of a large listed company (UK).	300	25.3%	Postal questionnaire
Goetzmann and Peles (1997)	To study the presence of cognitive dissonance among mutual fund investors.	Members of a state chapter of the American Association (sample 1) of Individual Investors and a group of professional architects (sample 2).	Sample 1: not reported; sample 2: 60	Sample 1: 29 responses but no reported response rate; sample 2: 20%	Postal questionnaire
Højskov (1997)	To study how auditors and users perceive the materiality concept.	Financial analysts (13) and authorised public accountants ("Danish CPAs") (11) (Denmark).	24	Not applicable	Pilot interviews followed by postal questionnaire
Moyes <i>et al</i> (1997)	To compare factors affecting analyst forecast revisions in Taiwan and the United States.	Financial analysts selected randomly from names provided by a major professional organisation of investment practitioners (USA, Taiwan).	421 (Taiwan: 51; US: 370)	Taiwan: 36%; US: 18.5%	Postal questionnaire
Rogers and Grant (1997)	To study the importance sell-side analysts assign to different types of information.	The full text of analyst reports and annual reports (USA).	187 sell-side analyst reports	Not applicable	Content analysis of documents
Barker (1998)	To investigate whether there exists an equilibrium mechanism whereby fund managers' investment decisions can be fully informed.	Participant observation (one month with an analyst firm). Interviews: Finance directors (40); Sell-side analysts (32); Fund managers/buy-side analysts (39). Questionnaire: Analysts (42).	111 interviews, 42 questionnaires	Not applicable	Participant observation, semi-structured interviews, postal questionnaires
Holland (1998a)	To study private company communications with core financial institutions.	Executives in large UK quoted companies (chairmen, chief executives, finance directors, investor relations directors).	33 quoted companies. (No. of interviews not specified)	Not applicable	Personal interviews
Holland (1998b)	To describe how large UK companies communicate with their institutional shareholders, and investigate how the private disclosure process relates to financial reporting.	Same as Holland (1998a).	Same as Holland (1998a)	Not applicable	Personal interviews

Study	Objective	Study object (respondents)	Sample size	Response rate	Data collection method
Holland and Doran (1998)	To describe the way institutional investors receive information directly from their investee companies, and how they seek to influence these companies.	Same as Holland (1995).	Same as Holland (1995)	Not applicable	Personal interviews
Johansson (1998)	To create a greater understanding of direct contact between financial analysts and representatives of traded companies.	Investor relations staff (3), financial analysts (9; from 6 different organisations), business journalists (3) and representatives from the Stockholm Stock Exchange (1), the Swedish Financial Supervisory Authority (1), and the Swedish Private Shareholder Association (1) (Sweden).	18	Not applicable	Content analysis of personal interviews, direct observation
McEnroe and Martens (1998)	To investigate how individual investors interpret "present fairly in conformity with GAAP" and "give a true and fair view".	A random sample of 1000 individual investors (US: 500 individual investors provided by a professional organisation; UK: 500 individual investors from a international media firm's database (UK and USA).	287	US: 37.2%; UK: 21.4%	Postal questionnaire
Marton (1998)	To study how stock market users use accounting, especially emphasising the impact of international accounting diversity.	15 financial analysts (all non-Swedish analysts, primarily sell-side and primarily focusing on Swedish stocks); 7 other financial market participants (all from London: 3 portfolio managers, 2 stockbrokers, 2 analysts); 8 representatives of Swedish listed companies (Sweden, USA, UK, Germany).	30	Not applicable	Personal interviews, content analysis of analyst reports, and market-based research
Miles and Nobes (1998)	To examine the reactions to foreign accounting data of participants in the global equity market who are based in London.	London-based international analysts and fund managers from six large institutions (12 analysts and 5 fund managers) (UK).	17	Not applicable	Personal interviews
Barker (1999a)	To examine some features of the equilibrium mechanism whereby security analysts translate value-relevant information into changes in market prices.	A subset of the field data described in Barker (1998).	32 interviews and 42 questionnaires	Not applicable	Semi-structured interviews, postal questionnaires
Barker (1999b)	To explore the role of dividends in equity valuation by means of examining the valuation practices of analysts and fund managers.	Same as Barker (1998).	Same as Barker (1998)	Not applicable	Same as Barker (1998)
Barker (2000)	To examine analysts' use of earnings information and draw implications for the stock market role of the financial reporting regulator.	A subset of the field data described in Barker (1998).	32 interviews	Not applicable	Participant observation, semi-structured interviews

Appendix B

Estimation of the importance of this study's institutional investors on the Stockholm Stock Exchange

The sample in the present study only covered a part of the investor population on the Stockholm Stock Exchange, namely large Swedish exit-oriented institutional investors. Private investors and other types of institutional investors were not included. Furthermore, the sample of large Swedish exit-oriented institutional investors was not random, and the collected data were primarily qualitative. Still, it is interesting to establish how large the institutional investors were on the Swedish stock market. Two ways of doing this are to examine their share of the total market capitalisation, and their share of the total turnover on the Stockholm Stock Exchange. Table B1 below shows the sum of the eight case companies' holdings of Swedish equities in relation to the total market capitalisation on 31 December, 1994.

Table B1 Estimate of this study's institutional investors' share of the Stockholm Stock Exchange total market capitalisation on 31 December, 1994

Sources: Annual reports and the Stockholm Stock Exchange

Total amount of the eight case companies' holdings of Swedish equities (SEK, billion)	The Stockholm Stock Exchange total market capitalisation (SEK, billion)	The case companies' share of the Stockholm Stock Exchange total market capitalisation
124.0	976.6	12.7%

The case companies' share of the total turnover on Stockholm Stock Exchange could only be estimated. On the basis of the transaction lists, the transaction amounts in the studied portfolios were known for the primary observation periods. The transaction amount was defined as the sum of all buys and sales of Swedish equities during the primary observation period. It was assumed that the transaction activity in the portfolios that were included in the study also applied to the other portfolios managed by institutional

investors. On the basis of what I knew about the portfolios not included in the study, this seemed to be the most reasonable assumption. The people who managed these portfolios were, to a very large extent, the ones I interviewed.¹ For each case company, the market value of Swedish quoted stocks in the portfolios on 31 December, 1994, was divided by the market value of Swedish quoted equities in all of the portfolios managed by the case company on 31 December, 1994. This resulted in percentages for each case company showing “how much” of their total Swedish equity portfolios I had studied. Thereafter, the transaction amounts for the portfolios were divided by these percentages, and this generated an estimated transaction amount for the whole case company for the primary observation period (see table B2). These estimated transaction amounts were then divided by the turnover on the Stockholm Stock Exchange during the same periods (see table B2).

Table B2 Estimated transaction amount for the case companies during the primary observation periods

Case company	Primary observation period	Estimated transaction amount for the whole case company (SEK, billion)	Turnover on the Stockholm Stock Exchange during the primary observation period (SEK, billion)	Estimated transaction amount/Total turnover on the Stockholm Stock Exchange (%)
Alfa	Aug–Oct 1993	2.9	113.6	2.59%
Bravo, Charlie, Echo	July–Sep 1994	11.6	158.8	7.28%
Delta	Jan–June 1994	8.2	330.7	2.49%
Foxtrot	July–Oct 1994	1.0	213.8	0.48%
Golf	Jan 94–Feb 95	3.8	769.8	0.50%
Hotel	Aug 94–Feb 95	2.5	405.9	0.61%
Total				13.95%

Tables B1 and B2 indicate that, in total, these institutional investors accounted for about 13 per cent of the total market capitalisation on the Stock-

¹ As background material, I have also studied these other portfolios in some detail.

holm Stock Exchange, and about 14 per cent of the trading volume. However, the estimate of the share of the turnover is probably somewhat overstated, since these institutional investors may have bought and sold stocks from each other during the studied periods. There is also some uncertainty with respect to the estimate of each case company's total transaction amount. Despite this, it gives an indication of the importance of these institutional investors on the Stockholm Stock Exchange.

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